DOCUMENT RESUME

ED 285 432 HE 020 474

AUTHOR	Lestinen, Leena, Ed.
TITLE	Higher Education Research at IER. Abstract Catalogue 1966-1985. Publication Series C, Bulletin No. 4.
INSTITUTION	Jyvaskyla Univ. (Finland). Inst. for Educational Research.
REPORT NO	ISBN-951-679-650-8
PUB DATE	86
NOTE	83p.
PUB TYPE	Reference Materials - Bibliographies (131)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	Bibliographies; *College Administration; *College Admission; College Faculty; *College Instruction; College Planning; College Students; Degrees (Academic); Educational Demand; *Educational Research; Educational Television; Foreign Countries; Higher Education; Learning Experience; *Postsecondary Education as a Field of Study; *Research Projects; Teacher Education
IDENTIFIERS	*Finland

ABSTRACT

A total of 112 abstracts of research reports and bibliographies published during 1966-1985 by the Institute for Educational Research at the University of Jyvaskyla in Finland are presented in English with accompanying Finnish titles. The abstracts constitute a review of higher education research at the Institute during the past two decades. A major part of this work has been closely linked with the reform of the higher education institution in Finland in the 1970s. The objective of this abstract catalogue is to disseminate research information abroad to promote exchange between the Institute and foreign research institutions and researchers in the field. Sixty-four of the 112 publications that are abstracted have come out in the Institute's Reports-series and 48 in the Bulletin-series. Included are researcher/author and subject indexes. The subject index is based on descriptors provided by researchers using the EUDISED thesaurus and the Finnish terminology of education. In addition to an English summary, an introduction explains the work of the Institute and lists six main topics of research interest. (SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

BEST COPY AVAILABLE

INSTITUTE FOR EDUCATIONAL RESEARCH. PUBLICATION SERIES C

ED 285432

Bulletin 4

Leena Lestinen

HIGHER EDUCATION RESEARCH AT IER

Abstract Catalogue 1966—1985

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

University of Jyväskylä

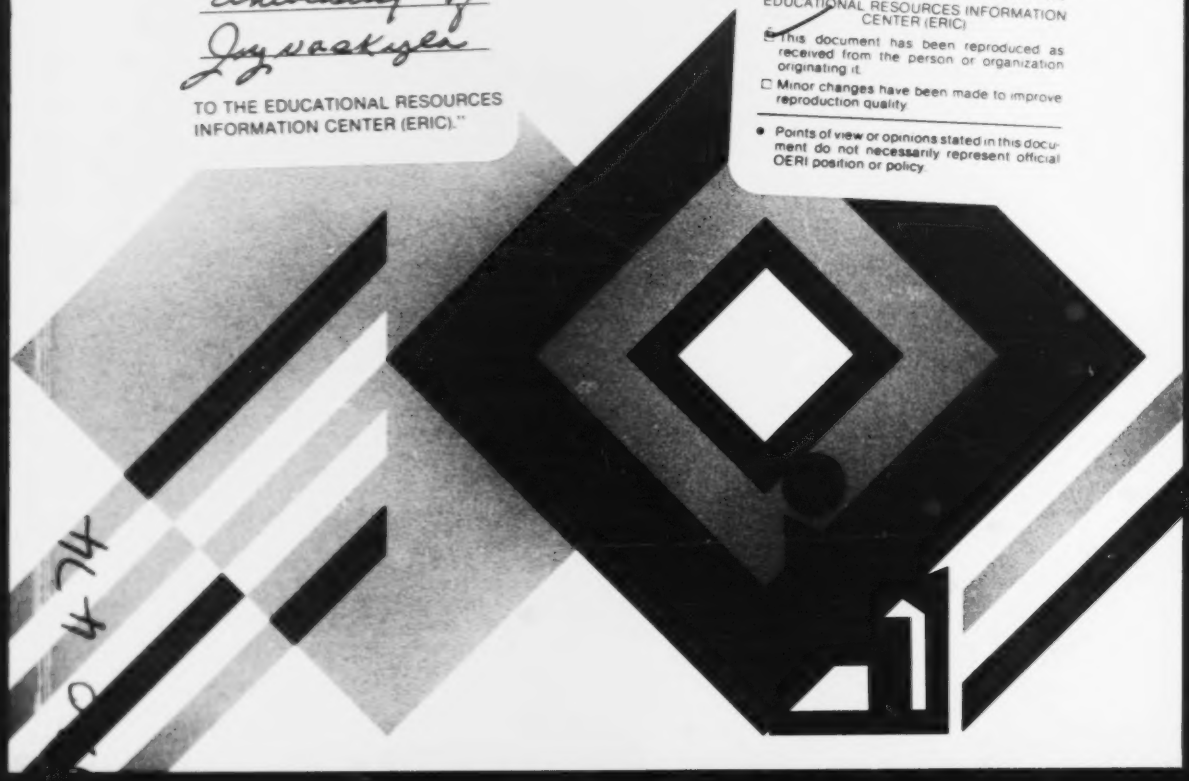
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.



374

UNIVERSITY OF JYVÄSKYLÄ

2

UNIVERSITY OF JYVÄSKYLÄ
INSTITUTE FOR EDUCATIONAL RESEARCH

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Institute for Educational Research, University of Jyväskylä

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

POSTAL ADDRESS:
Seminaarinkatu 15
SF - 40100 JYVÄSKYLÄ 10
FINLAND

STREET ADDRESS:
Yliopistonkatu 9
SF - 40100 JYVÄSKYLÄ 10
FINLAND

TEL. SWITCHBOARD 35841 - 291 211

HE

Kasvatustieteiden tutkimuslaitoksen julkaisusarja C. Tiedotteita 4
Institute for Educational Research. Publication series C. Bulletin 4
Pedagogiska forskningsinstitutet. Publikationsserie C. Meddelande 4

HIGHER EDUCATION RESEARCH AT IER

Abstract Catalogue 1966-1985

TUTKITTUA KORKEAKOULUTUKSESTA

Kasvatustieteiden tutkimuslaitoksen raporttien tiivistelmiä 1966-1985

Leena Lestinen (ed.)

Kasvatustieteiden tutkimuslaitos, Jyväskylä
1986

ISBN 951-679-650-8
ISSN 0782-9825
Printing center at the University of Jyväskylä
Sisä-Suomi Oy (covers)
1986

ABSTRACT

Lestinen, L. (ed.) 1986. Higher Education Research at the Institute for Educational Research. Abstract Catalogue 1966-1985. Jyväskylä: University of Jyväskylä. Institute for Educational Research. Publication series C. Bulletin 4.
ISBN 951-679-650-8
ISSN 0782-9825

This catalogue includes 112 abstracts of research reports and bibliographies published by the Institute for Educational Research in 1966-1985. 64 of these reports have come out in the series of Publications and 48 in the series of Bulletin. The abstracts constitute a review of higher education research at the institute during the past two decades. A major part of this work has been closely linked with the reform of the higher education institution in Finland in the 70s. The aim of the catalogue is to promote dissemination of research information to other researchers, planners, decision makers and the public. The catalogue has been published also in Finnish: Bulletin 3.

Descriptors: higher education, research, bibliography, dissemination of information

TIIVISTELMÄ

Lestinen, L. (toim.) 1986. Tutkittua korkeakoulutuksesta. Kasvatustieteiden tutkimuslaitoksen raporttien tiivistelmiä 1966-1985. Jyväskylä: Jyväskylän yliopisto. Kasvatustieteiden tutkimuslaitoksen julkaisusarja C. Tiedotteita 4.
ISBN 951-679-650-8
ISSN 0782-9825

Luettelo sisältää 112 tiivistelmää korkeakoulutusta käsittelevistä tutkimusraporteista ja kirjallisuusviiteluetteloista, jotka on vuosina 1966-1985 julkaistu Kasvatustieteiden tutkimuslaitoksen sarjoissa. Raporteista 64 on ilmestynyt Julkaisuja-sarjassa ja 48 Selosteita ja tiedotteita -sarjassa. Tiivistelmät sinänsä ovat katsaus tutkimuslaitoksessa kahdenkymmen vuoden aikana harjoitettuun korkeakoulutuksen tutkimustyöhön. Luettelon tarkoituksena on edistää alan tutkimustiedon leviämistä toisten tutkijoiden, tiedon soveltajien, päättäjien ja suuren yleisön pariin. Tiivistelmäluettelo on julkaistu myös suomenkielisenä: Tiedotteita 3.

Asiasanat: korkeakoulutus, tutkimus, bibliografia, tiedonvälitys

INTRODUCTION

The Institute for Educational Research (IER) is a national research centre operating in conjunction with the University of Jyväskylä. The Institute has carried out research on higher education for two decades, although the actual department in this sector was not established until 1972. The nationwide duties assigned to the Institute have been defined by decree. One of the main tasks is to "promote university pedagogics and conduct research on higher education".

The research work in the department has been closely connected with the structural reform of the Finnish HE system since the 1970's. Projects commissioned and financed by the Ministery of Education have provided research-based information for the reform of the administration and the degree system in universities.

Research objects have included methods of educational planning, student selection and student flow, as well as solutions pertaining to degree administration and other administrative structures with related experimentation. Some of the research has been concerned with the planning of teaching and its pedagogical and didactic development. Especially educational technology has aroused interest at the Institute.

The Department of Higher Education Research has defined the present most important problem areas in the field as follows:

- functions of HE and its connections with work life,
- application and selection of students,
- students' study career, socialization and occupational development during education,
- research and piloting related to teaching and learning,
- adult education in connection with HE,
- theory and methods of evaluation research.

The department is also responsible for national and international information services regarding HE and university pedagogics.

The department has in progress (1986) five projects in the above mentioned areas. They are financed on a permanent basis in

the state budget. In addition one project and the information services are financed on a year-to-year basis by the Ministry of Education. A great deal of the present research is follow-up in nature. The research is estimated to account for one fifth of the Institute's activities by the end of 1980's.

The number of the personnel in the department is 12: 10 researchers including Head of Department, Mr. Raimo Mäkinen (Ph.D) and 2 auxialiary persons. The total number of the professional and auxialiary personnel in the Institute is about 85.

***

This catalogue contains 112 summaries of reports on HE research and surveys carried out in the Institute in 1966-1985. 64 of the publications have come out in the Reports-series and 48 in the Bulletin-series. The catalogue also includes summaries of reports whose topic touches upon HE only partly, but to a significant extent.

Besides research reports and surveys the Institute's publication series also include reports of papers presented at national HE conferences and symposiums organized by the Institute. Similar contributions of international meetings of researchers and experts are the publications of the Nordisk förening för pedagogisk forskning (the Nordic Society for Pedagogical Research) and those of the Finnish-Soviet educational research cooperation seminars. These meetings often discuss issues which are interesting also from the viewpoint of HE.

Secondary sources of information have in the catalogue been limited to bibliographies and research registers in the field of HE from all the bibliographies compiled in the Institute. The summaries are followed by a list of information material on HE, partly in English, which is available at the Institute.

The purpose of this catalogue is to make Finnish HE research better known abroad and to promote possibilities for exchange agreements between the Institute for Educational Research and foreign research institutes and researchers in the

field. Dissemination of information on HE research may also help lay a foundation for even closer international cooperation.

The list of summaries is preceded by a person index and a subject index based on descriptors provided by researchers using the EUDISED thesaurus and the Finnish terminology of education. The summaries are in order of publication so that the most recent ones are at the beginning of the list. Abstracts from the publication series Publications are listed in pages 1-34 and from the publication series Bulletin in pages 35-56.

The reports presented in the catalogue include an English summary of a few pages, except when the reference note is followed by a * sign.

Jyväskylä, 4th June 1986

Ms. Leena Lestinen
Researcher (MA)

Reports and other information material may be ordered from the Institute for Educational Research, Information Unit, Seminaarinkatu 14, SF-40100 Jyväskylä, Finland. Tel. + 358 41 292 378.

Report prices vary from 5 to 60 FM.

AUTHOR INDEX	REPORTS	BULLETIN
Aittola Helena	62	
Aittola Tapio	62	
Antikainen Ari		46
Aunela Ahto		20
Berggren Ola	35, 15	
Black Colin	17	
Elovainio Päivi	31	
Eronen Yrjö	36	11
Gustafsson Marita	17	
Hakkarainen Pentti	60, 17, 6	22
Helenius Sirpa		44
Hirsjärvi Sirkka	58	
Jalkanen Hannu	51, 46, 34, 25, 20, 16	39, 27
Kajava Kalevi	40	
Kalaja Pekka	26	
Kari Jouko	57, 54	14, 6
Karvonen Juhani	13, 11, 10, 8, 7	1
Kaukoluoto Eeva	44	
Kettunen Pertti	32	
Kiltti Ritva	17	
Kirjonen Juhani	2	
Kivistö Kalevi	5	
Koivumäki Seija		35
Konttinen Esa		19
Konttinen Raimo	36, 12	47
Koppinen Alvar	41, 30	
Koskinen Ilse	23	
Kuusisto Jouni	61	
Kytönen Arja		45
Kyöstiö Oiva K.		41, 23, 17
Lahtinen Anja		12
Laihiala-Kankainen Sirkka		24
Lehtonen Jaakko	29	
Leimu Kimmo	52	
Lestinen Leena		48, 43, 42
Lillberg Juhani	26, 23, 22 19, 16	
Lindqvist Pirkko	17	
Loikkanen Eine	44, 23	
Lyytikäinen Vesa	1	
Malin Antero	59	37, 34
Malinen Paavo	1	3
Marin Marjatta	48, 18, 16	
Mäkinen Raimo	64	
Määttä Pentti	63, 24, 21, 16	39, 32, 26, 13, 8
Nordiskt Symposium	42	

AUTHOR INDEX	REPORTS	BULLETIN
Nuutinen Anita	36	47, 33, 24
Olkinuora Erkki	47	
Ollila Kaisu		30
Oravainen Katariina	52	
Paakkola Esko		5
Pakarinen Sirkka		40
Panhelainen Mauri	64, 59, 36	47, 46, 37, 36, 34, 11
Parjanen Matti	64	46
Parvela Tarmo	28	
Paukkunen Leo		15
Peisa Seppo	38	2
Perkki Lauri	47	15
Piippo Teuvo	17	7
Pirttimäki Reijo	37	
Pitkänen Pentti	38	
Poutiainen Annikki	41	
Reitti Jarmo	43, 32	
Remes Pirkko	58	21
Renko Manu	28, 6	
Saari Hannu	52	
Saavalainen Marja	49	10
Salmela Ritva	38	2
Sauvala Atso	57	18
Savolainen Satu		33
Sikanen Timo	38	
Silvennoinen Martti	49, 37	10, 2
Stellmacher Dieter	33	
Suhonen Raimo	17	
Suomalainen Markku	41	
Suonperä Matti	54	
Suortti Juhani	56, 55, 53, 50	9, 5
Sysiharju Anna-Liisa	14	16
Sänkiaho Risto	39	
Taipale Hannu	38	
Takala Sauli		31, 25, 4
Telama Risto	9, 4, 3	
Toiviainen Jyrki	41	
Turtiainen Kare	45, 32	
Varmola Tapio		29
Vartola Juha	27	
Ylinentalo Oiva	41	38, 28

SUBJECT INDEX	REPORTS	BULLETIN
academic degree		20, 19
administration	48, 28, 26, 21	46
administrative reform	46, 44, 28, 27 24, 19, 15	20, 11
adult education		44, 42
aims of education	57, 36, 35, 25, 2	44, 10
assistant	48, 18	
association	42	22
autonomy	21	
Austria	44	
bibliography	58, 23	43, 42, 40, 30 24, 21, 17
career choice	64, 49, 48, 11	39, 36
CCC (Council for Cultural Cooperation)		4
classification		30, 24, 8
commercial sciences	64	48, 46
comparative education	40	
comprehensive school	52, 10, 9, 8, 7	36
computer-assisted instruction		46, 38
conception of the world	64	48, 47, 36
conference	41	
copying	61	
cost		32
cost-benefit-analysis	45, 32	
curriculum		47, 5
data bank		43, 31
data processing	41	47, 38, 27, 6
decision making	43, 39, 27, 24	20
degree programme	64, 49, 45, 44, 32, 3	33, 10, 3
degree reform	64, 36	20, 13, 11, 10, 3
Denmark	44	
department	46, 19	
didactics	60, 53	48, 10
economics of education	64	
educational demand	63, 14, 5	37, 36, 34, 32, 27
educational guidance	49, 26, 14, 5	
educational need		29
educational policy	47, 26, 17	48, 46, 36, 25
educational reform	35	15, 7
educational research	60, 42, 31	41, 23, 22, 21, 17, 15, 14, 6
educational science	36	45, 42, 35, 31
educational technology	50, 17	10, 9
English language	12	31

SUBJECT INDEX	REPORTS	BULLETIN
Eudised		31
Europe	43, 31	46, 4
evaluation	64, 60, 50, 31, 17, 15	36
equality	52	
experiment	50, 36, 19	33
faculty	36	20
Finnish language		45, 35, 31
follow-up	49, 47	36, 15
follow-up study	63, 59	48, 39, 37, 36, 34
France	44	
French language		45
further education	63, 59, 51, 10, 9, 8, 7	16
futures research	58	46
Germany DR	44	
Germany FR	44	
German language	33	35
Great Britain	44	
grammatical theory	33	
guidance method		33, 24
guide book	41, 29, 15	38, 27, 1
higher education	64, 54, 51, 49, 46, 45	48, 43, 42, 40, 36
higher education institution	46, 44, 34, 31, 27 25, 24, 21, 19, 16	48, 46, 36, 11, 8
higher education policy	34, 25	48
history of education		41
humanities	64, 59	48, 37, 34, 13
indicator	47	
information	49, 34	31
information processing		31
in-service education	64, 37, 10, 9, 8, 7	48, 16, 7
institute-level education	60	39, 19
interaction analysis	54	
internationalism		44
Italy	44	
job placement	48, 14	48, 46, 19, 13
labour power	25	29, 19
language laboratory	29, 15, 12	
language planning		25
language teaching	35, 33, 15, 12	48, 25
learning	64, 60, 39, 37, 12	48, 47, 36, 33
learning outcomes	38, 10, 9, 8, 7	
learning strategy	59	33
legal security	34, 20	
legislation	61, 28, 25	
lenght of studies		48
life process	38	
mathematics	1	

SUBJECT INDEX	REPORTS	BULLETIN
matriculation examination		26
meaningfulness of studies	59	
medicine	64	36
methodology	46	36, 23, 14, 6
multidisciplinary approach	64, 62	
natural sciences	64, 59	48, 37, 34
Nordic countries	42	4
Norway	44	36
occupational choice		48, 37, 34
OECD		4
operations research	43	
organization		30, 4
participation	5	
peace education		44
periodical	23	43, 30, 24, 12
personality	60, 13, 12, 11	
philosophy of education	50	9, 5
physical education	4, 3, 2	36
planner	58, 39, 26	
planning of education	51, 49, 45, 43 32, 31, 25	29, 15, 10 14, 6
planning of research		10
planning of teaching	45	48, 42
planning method	45, 39, 32	
Poland	44	
political decision-maker	39	
programming	41	
programmed instruction	50, 15	9
prospects of change in education	57	
psychology		29
publicity		43, 42, 40, 30, 12, 4
quantative planning	47, 43, 32	
radio (teaching)	10, 9, 8, 7	
readership study		12
recruitment	59, 52, 48	48, 39
reporting		12, 6
research	46, 39, 30, 26, 23, 22	48, 42, 36, 22, 15, 3
research institute		30, 6
research register		42
researcher	58, 48, 39, 26	
resources	46, 25	2
science on science		41, 23, 21, 17, 15
selection test	34, 3	
seminar	60, 53	

SUBJECT INDEX	REPORTS	BULLETIN
social change	64, 58, 31	
social science	62, 49, 36	20
sosiolinguistics		25
Soviet Union	60, 44	24, 22
speech correction	30	
speech training	30	
sport	4, 3, 2	
statistics	47, 39	
stimulus presentation methods	36	
student	64, 62, 57, 52, 50 20, 13, 12, 11, 5, 2	48, 36
student selection	58, 51, 33, 4, 3	48, 39, 37, 36, 34, 32, 28, 26
studies	64, 62, 5, 2	48, 36, 24
study orientation	64, 59, 49	48, 36
study module		10
subject		8
subject teacher education	59	48, 37, 36, 34
success	5	
Sweden	44	36
symposium	42	48, 36
system of education	44, 14	24, 18, 15
tape recording	29	
teaching	61, 60, 53 46, 40, 17	10
teaching aids	33, 29, 17	11
teaching materials	61, 41, 15	
teaching programme	38, 37, 35, 15, 9, 8, 7	25
teacher	55, 54, 48, 18 9, 8, 7, 4	36, 16
teacher training	28, 13, 10, 1	48, 36, 22, 3
teacher training college	28, 13, 11	16
television (teaching)	38, 37, 10, 9, 8, 7, 6	2
theory of science	42	
thesaurus		31
thesis	25	40, 1
Thailand		18
unemployment		19
UNESCO		4
University of Helsinki	48	
University of Joensuu		48
University of Jyväskylä	49, 48, 45, 36, 5, 4, 3, 2	20
University of Oulu	48	
University of Technology in Lappeenranta	35	
university pedagogics	53, 36, 17	48, 47, 36, 33, 30 24, 10, 9, 2

SUBJECT INDEX	REPORTS	BULLETIN
upper secondary level education	63, 51	48, 39, 26, 19
vocabulary		45, 35, 31
vocational education	63, 57, 51, 14	39
vocational preferences	59	37, 36, 34
work life	18	47, 46, 19
work processing		27

REPORTS FROM THE INSTITUTE FOR EDUCATIONAL RESEARCH. UNIVERSITY OF JYVÄSKYLÄ. ISSN 0448-0953

64. **Mäkinen, R., Panhelainen, M. & Parjanen, M. (eds.) (1985) Recent Finnish research on higher education 1985. Report 364. 212 p. ISBN 951-679-375-4**

The report contains 11 articles on the recent research themes and problems of Finnish higher education. The areas included range from the societal and economic aspects of the university system to the problems of the students' study and professional careers, professional orientation, university pedagogics and learning, and extension studies.

63. **Määttä, P. (1985) Jatko-opinnot ammatillisen opistotutkinnon jälkeen. Kuudelta koulutusalalta valmistuneisiin kohdistuneen kolmen vuoden seurannan tulokset. - Further studies after an institute-level vocational degree. The results of a 3-year follow-up study in six branches. Report 362. 172 p. ISBN 951-679-342-8**

The project has examined plans for further studies, and application for and placement in education after an institute-level degree in the field of commerce, technology, agriculture and forestry, home economics or tourism.

Interest in further education is commonest among graduates from a commercial institute who have taken the matriculation examination and graduates from the field of nursing, from whom 40-45 % have applied for education during the three years of follow-up. Most often education has been started by graduates from institutes in the field of nursing or technology, from whom about one third has started further-studies during the time of follow-up. Least interest in further education has been shown by graduates from the field of agriculture and forestry. Apart from the field of nursing, study success at the institute has only little significance in increasing application for further education. Educational demand is primarily directed at education in one's own field, but only among graduates from a commercial institute is it mostly aimed at university level.

62. **Aittola, H. & Aittola, T.** (1985) Yliopisto-opiskelun mielekkyyden kokeminen ja opiskelijoiden elämismaailman perusrakenteet. - **The meaningfulness of university studies and the basic structures of students' life-world.** Report 359. 155 p. ISBN 951-679-318-5

The report examines university studies and students' everyday life in the light of a multidisciplinary research approach. In nature, the investigation of the meaningfulness of university studies and students' life-world is explorative research, calling for at least a philosophical, sociological and psychological research approach. The project was carried out by interviewing 80 students from the Faculties of Education and Social Sciences at the University of Jyväskylä. The meaningfulness of university studies proved a very complex phenomenon, for its contents varied considerably between students from different disciplines, and also between students at different stages of studies. Various factors related to the academic study process and study method explained best the experiencing of the meaningfulness of studies.

61. **Kuusisto, J.** (1984) Kopioinnin pedagoginen merkitys. - **The pedagogical significance of copying.** Report 356. 183 p. ISBN 951-679-274-X

The mail-survey commissioned by the Ministry of Education aimed at explaining the pedagogical significance of copying (photo-, spirit-, stencile and thermo copying) in instruction. the target group consisted of teachers (N = 288) in the comprehensive, upper secondary and vocational schools, in vocational and general educational colleges and universities. The investigated sub-areas were copying needs and motives, the effect of copying on teacher's work and time expenditure, difficulties in copying ad well as evaluation of copyright principles and compliance with the school copying agreement.

The results indicate that teachers copied most often their own teaching- and research material. The most significant cause for copying was the need to use copies as exercise-, extra- and supplementary material. The most significant pedagogical factor was that of improving teaching efficiency (the highest level of Clarke's theory).

60. **Hakkarainen, P.**(ed.) (1984) Tiedostamisaktiviteetin kehitys opetuksessa. Moskovassa 15.-17.11.1983 järjestetyn neuvostoliittolais-suomalaisen kasvatustieteellisen tutkimuksen yhteistyöseminaarin esitelmät. - **The development of cognitive activity in instruction. The papers presented during the Soviet-Finnish seminar on educational research in Moscow, November 15th - 17th 1983.** Report 351. 116 p. ISBN 951-679-179-4

The papers presented at the second Soviet-Finnish cooperative seminar on educational research dealt with different aspects of the development of cognitive activity. The articles contain results of both theoretical and applied psycho-pedagogical research, and didactic-methodological explications by means of which cognitive activity can be developed in teaching. Cognitive activity has been examined from the point of views of cognitions, motivation and personality development. The papers have comprised applications of activation methods (e.g. problem-centredness) to different educational levels and content areas.

59. **Panhelainen, M. & Malin, A.** (1983) Opiskelijoiden valikoituminen humanistisiin ja luonnontieteellisiin korkeakouluopintoihin ja ensimmäinen opintovuosi. - **Selection of students in the humanities and natural sciences and their first study year in higher education.** Report 346. 190 p. ISBN 951-679-101-8

This report is part of a follow-up study on subject teacher eduction regarding humanities and natural sciences. It deals with three phases in students' study career: student selection and success in it, initiation of studies and realization of preferences, and the development of study and vocational orientation during the first study year.

The results indicate that the motivational situation of new students is problematic, especially in natural sciences. This results partly from the selection system, partly from the fact that for a majority the preferences do not become realized in the selection. The change in the vocational orientation indicates a heavy drop in uncertainty during the first study year and that teaching profession has a central role in that development.

58. **Hirsjärvi, S. & Remes, P.** (1983) **Education and information society. Future images of teaching personnel.** Report 345. 126 p. ISBN 951-679-082-8

A futurological research project called education and information society has been initiated at the University of Jyväskylä. The project is financed by the Academy of Finland and the National Board of General Education. The aim is to examine images of the future held by teachers, researchers and planners of education. This report of the pilot study focuses on the concept of an image of the future, the origin of futures images, their change and their significance to the activities of individuals and communities. The report also describes the study of the future and its methods in general. Some prospects of change in learning and teaching which have been discussed in recently published literature have also been compiled to this report. The report contains a comprehensive bibliography of educational futurology.

57. **Kari, J. & Sauvala, A.** (1982) Kasvatustavoitetutkimusprojekti V. Ammatillisten oppilaitosten oppilaiden, opettajien ja huoltajien sekä kouluhallintoviranomaisten ja korkeakouluopiskelijoiden hyväksymät kasvatustavoitteet ja niiden yhteydet taustamuuttujiin kevätlukukaudella 1980. **-The educational goals research pjoject V. Educational goals accepted by vocational school pupils, their teachers and parents, school administration and higher education students, and the relationship between the goals and background factors in spring 1980.** Reports 320. 199 p. ISBN 951-678-714-2.

The purpose of the project was to examine how important the defferent population groups of the Finnish society consider educational goals and to what wxtent the educational goals of different content areas are atteined during school. Parents and teachers valued the presented goals most and higher education students and school authorities least. Most highly valued goals were those related to overall personality, mental health and work education, and ethical-social goals, the atteinment of which increaşes during school. At the same time the appreciation and attainment of health and national goals decreases. The proposed education

act includes the responsibility that respondent grown in vocational school valued most highly and the appreciation of peace, which was most frequentely accented by pupils in school of general education.

56. Suortti, J. (1981) Opetussuunnitelmaongelma. Teoreettista analyysiä opetussuunnitelman ehdoista. Osa II. **The problem of the curriculum. Theoretical analysis of the preconditions of the curriculum. Part II.** Report 310. 176 p. ISBN 951-678-497-6.

The study deals with the theoretical preconditions of the curriculum. The analysis is based on the application of Hegel's totality principle and the existential-phenomenological analysis. The presentation proceeds through positivistic criticism of empirical education to the phenomenological problems of dedactics. The study tries to outline the concrete preconditions contributing to the curriculum totality. The paper has shown at least tentatively that it is necessary to penetrate the value problems, if educational science intends to treat the curriculum issue as a theoretical problem.

55. Suortti, J. (1981) Opetussuunnitelmaongelma. Teoreettista analyysia opetussuunnitelman ehdoista. Osa I. **The problem of the curriculum. Theoretical analysis of the preconditions of the curriculum. Part I.** Report 309. ISBN 951-678-496-8.

The study deals with the theoretical preconditions of the curriculum. The analysis is based on the application of Hegel's totality principle and the existential-phenomenological analysis. The presentation proceeds through positivistic criticism of empirical education to the phenomenological problems of didactics. The study tries to outline the concrete precondition contributing to the curriculum totality. The paper has shown at teast tentatively that it is necessary to penetrate the value problems, if educational science intends to treat the curriculum issue as a theoretical problem.

54. **Suonperä, M. & Kari, J.** (1980) Kriittisiä liikeosioita koskevan informaation didaktinen käyttökelpoisuus opettajakokelaiden arvioimana. - **The didactic usability of information on critical motion items as rated by teacher trainees.** Report 307. 69 p. ISBN 951-678-473-9.

The project examines the usability of videotapes on critical motion items in the teaching of subject didactics. The report covers the experimental phase of the project, the results of teacher trainees' ratings of the videotapes (dependent variable). The independent variable is the information contained in the videotapes constructed by means of the CIO-technique (Critical Incidents Observation). The relationship between backround variables, sex and the extent of studies, and the ratings has also been studied. The results indicate that CIO-material is very suitable for use in teacher education.

53. **Suortti, J.** (1980) Korkeakoulupedagogiikasta korkeakouludidaktiseen tutkimukseen. - **From higher education pedagogics to research on higher education didactics.** Report 305. 188 p. ISBN 951-678-404-6

The basic aim of this study was to show the contradictoriness prevailing in the development of the Finnish HE system in qualitative and quantitative issues. Planning has been directed by quantitative problem setting. Qualitative pedagogical planning has remained in the background. The concept of HE pedagogics has also proved a broad and flexible concept, which covers the problem field of HE from administrative planning to didactic realization.

Another basic theme has been to clarify the scope of the HE pedagogics' concept in connection with the process of HE didactics. This theme is concretized by hypothetical example of one research possibility for the investigation of didactic processes. Seminar-type teaching was selected as object of study.

52. **Leimu, K. & Oravainen, K. & Saari, H.** (1978) Koulutusteille valikoituminen ja sitä määrääviä taustatekijöitä Suomen koululaitoksessa. - **Choice of educational career and factors influencing it in the Finnish educational system.** Report 288. 151 p. ISBN 951-677-947-6

The literature survey focusses mainly on Finnish educational research on pupils' recruitment and education plans. It describes the characteristics of primary, civic, lower secondary and upper secondary school pupils, and higher education students, as well as their home and other environments, their education plans and grounds for them.

The empirical part focusses on further education plans and their realization and factors related to them among 10- and 14-year-old pupils in the final year of the IEA-project (International Six-Subject-Study). Different pupil groups are described with regard to their further education plans, social background, ability, achievement, attitudes as well as regional factors. These variables have also been used in the explaining of further education plans, and the explanation has been compared with the power of the same variables to explain school achievement. Recruitment is found to be a process which is related to background factors and is repeated in consecutive recruitment situations.

51. **Jalkanen, H.** (1977) Korkeakoulutukseeen johtavat koulutusväylät ja opiskelijavirrat. - **Educational channels leading to higher education and the flows of students.** Report 277. 114p. ISBN 951-677-877-1

The reform of secondary level vocational education and higher education is based on policy decisions made by the Cabinet 1974, which presuppose that vocational education is made equal with the upper secondary school as a channel leading to higher education.

In Finland higher education students are selected on the basis of reports, entrance examinations or both of them. For the selection of students who have not taken the matriculation examination but have got a vocational degree there is an average quota of 10 % of the new students. However, only about 3 % of these students were enrolled and about 6 % of students with a matriculation examination as well as a vocational or an academic degree. From all the applicants about every fourth was accepted. The acceptance rate was higher among students who had taken the matriculation examination than among those who had not. The acceptance

rate of students with no matriculation examination was highest in economics and law, and lowest in mathematics and natural sciences.

50. **Suortti, J.** (1976) Ohjelmoidun opetuksen kehityksestä ja kokeellisesta analyysista. - **On the development and experimental analysis of programmed learning.** Report 263. 231 p. ISBN 951-677-629-9

The development of programmed learning is presented in chapter I of the study. The main theme is to describe the synthesis of programmed learning and other methods of educational technology. Chapter II contains an empirical experiment for finding out a new way of improving programmes of the type used by Susan Markle. This programme has been published in a bulletin of the Institute for Educational Research (Teaching-learning process as the basis of goal-definition. A programmed course applied to the Finnish Comprehensive School Curriculum, No. 52, 1975).

The method is based upon an item evaluation done by the university students and on correction proposals made by them. The research aimed at finding out such a practical method that would make it easier to collect relevant correction information in case of extensive experiments. Suggestions for finding a mechanism like this were arrived at by means of a theory of typology. The variable of the learning situation, the time needed for performing the task, and the number of mistakes seem to explain the making of relevant correction proposals. Functional approaches and discriminant analysis were used in this research. It is necessary to make further studies of the approach.

49. **Silvennoinen, M. & Saavalainen, M.** (1976) Jyväskylän yliopiston yhteiskuntatieteellisen tiedekunnan uusiin koulutusohjelmiin pyrkineiden koulutusohjelmien preferointi ja opinto-orientaatio. - **Applicants' preferences for study programs and study-orientation in the Faculty of Social Sciences at the University of Jyväskylä.** Report 261. 132 p. ISBN 951-677-603-5

The aim of the study was to find out the grounds for career choice of those applying for new educational programs in the Faculty of

Social Sciences, information they have received on the courses and pre-structuring of education. The study is descriptive and the data collected will be used in study counselling and follow-up studies for degree instruction.

The results showed that in social sciences students apply simultaneously for various fields of study including lower vocational studies. The structuring of new educational program has been aided by advance information even though the conceived structure has not always corresponded with the factual structure of education. The most popular educational program has been the one meant for future psychologists, where the number of female applicants and those admitted seems disproportional. Systems planning and statistics have received least applications and they have admitted students having the lowest entrance scores and seem to need develoment in study counselling and educational structuring in the future.

48. Marin, M. (1975) Assistentiksi valikoituminen. - Assistant teacher recruitment in higher education. Report 249. 57 p. ISBN 951-677-421-0

This study is concerned with the post of an assistant teacher as a springboard to the higher positions, and with factors which distinguish assistant teachers from others who started their studies at the same time. The study includes the students of the universities of Helsinki, Oulu and Jyväskylä who started their studies in 1960. The material consists of interviews as well as statistical data and student registers.

The results show that 1) about 60 % of the senior teaching staff of the universities studied, have earlier worked as assistant teachers in their own field at he same another university, 2) assistant teachers usually pursue studies to a higher level than their fellow students, and their pace of study is also quicker, 3) who have been recruited as assistant teachers are more often - males, from towns and from higher social strata, 4) social background influences recruitment the more strongly the more successful the student has been in the secondary school, 5) recruitment differs somewhat in different universities and different fields of study.

47. **Olkinuora, E. & Perkki, L.** (1974) Koulutusindikaattorijärjestelmän edellytykset, lähtökohdat ja käytännön konstruointimahdollisuudet. - **The theoretical foundations of a system of educational indicators and possibilities for its practical construction.** Report 243. 164 p. ISBN 951-677-387-7

The aim of the project on educational indicators was, in accordance with its terms of reference to study possibilities to construct a system of educational indicators to assist quantitative educational planning. For this purpose a framework has been built analyzing the starting points and quiding the construction of indicators, which gives a basis for the cross-tabulation of goal areas derived from the functions of education and the controllable basic factors which are the objectives of educational planning. For the operationalization of the goals defined in the frame of reference recommended indicators have been listed and their practical construction possibilities have been studied.

The summary contains conclusions about the present theoretical, technical and organisatory possibilities of the construction of a relevant system of educational indicators and recommendations for the improvement of these possibilities.

46. **Jalkanen, H.** (1974) Korkeakoulujen oppiainelaitosten toiminta, toimintaedellytykset ja alihallinnon kehittäminen. - **The activity and resources of departments in institutes of higher education and the development of departmental administration.** Report 242. 73 p. ISBN 951-677-382-6

The study is mainly based on the situation in 1973. The great differences in the departmental organization, in the direction and resources of university departments make it difficult to develop the contents and structure of teaching, research and other servicing functions.

Attention should be paid to the following points: 1. Flexible departmental organization. Teaching and research should mainly direct its activities. 2. Adequate resources should be allocated to various tasks. 3. The relation between the departmental and the central administration should be close. 4. Departmental

administration should stress features such as democracy, efficiency, sufficiency, legal security, systematical planning etc.

Working orientation and functioning and coordination possibilities are more important factors influencing the activities of the departments than e.g. the size of the department or the proportion of major students of all students in the department.

45. **Turtiainen, K.** (1974) Kustannus-hyötyanalyysin metodologia ja korkeakoulujen toimintaohjelmien suunnittelu. - **The methodology of cost-benefit analysis in planning programmes of higher education.** Report 224.157 p. ISBN 951-677-297-8

The purpose is to study the methodological problems of cost-benefit analysis in the planning of higher education. At first an attempt is made to study and develop cost-benefit analysis at general level from the viewpoint of alternative functions carried out within educational decision-making. Cost-benefit analysis will be needed to a growing extend as a method of planning in higher education when the planning of teaching is carried out in form of entire programme units, so-called training programmes.

An attempt has been made to develop a relevant taxonomy for factors which are most essential in view of the comparability of educational programmes, viz. the benefits. The most essential groups of benefits are: production benefits, manpower benefits and democracy benefits.

In the second half the study focuses on the factors influencing the comparison of training programmes. The appendices include some calculated examples of the costs of some outputs in some departments of the University of Jyväskylä.

44. **Kaukoluoto, E. & Loikkanen, E.** (1974) Korkeakouluhallinto Euroopan maissa. Korkeakoululaitoksen hallinnon rakenne ja uudistussuunnitelmat. - **Administration of higher education in some European countries. The structure and reform plans of university administration.** Report 215. 103 p. ISBN 951-677-244-7

The report describes the administration of higher education in some European countries. A survey is made of internal administration as well as central administration, reform plans, and students position in higher education. A short description of the quantitative state of education and the school system in each country provides a backround for the actual subject.

The survey covers eleven European countries: Great Britain, Italy, Austria, Soviet Union, Norway, Poland, France, Sweden, the German Democratic Republic, the Federal Republic of Germany, and Denmark.

The selection criteria used were 1) the political system; socialistic vs. capitalistic countries, 2) the historical tradition of higher education; Anglo-Saxon vs. French vs. German tradition of higher education and 3) the attainability of information.

43. Reitti, J. (1974) Operaatiotutkimus ja määrällinen koulutuksen suunnittelu. - Operations research and quantitative aspects of education. Report 214. 84 p. ISBN 951-677-243-9

The study is an initial survey of the application possibilities of operations research in the quantitative planning of education. In the first part of the report different models of operations research are studied briefly and in a simplified form mainly from the viewpoint of decision making. In the second part an attempt has been made to ascertain the central planning areas in which operations research could be made use of in connection with the planning of operations.

For the classification of different questions related to decision making and planning the problem area has been divided into four sections: output and input planning at macro level, and output and input planning at micro level. Main attention in the study has been directed to questions of principle and objective-means relations in each problem group. Furthermore, an attempt has been made to study individual planning questions by way of example in each problem area.

42. **Nordiskt symposium om vetenskapsteoretiska problem inom den pedagogiska forskningen i Jyväskylä den 28-29 september 1973. Konferensrapport. – Report of a Nordic symposium on epistemological problems in educational research in Jyväskylä, September 28-29, 1973.** Report 213. 127 p. ISBN 951-677-341-2 (*)

The symposium was arranged by the Finnish Society for Educational Research in co-operation with the Department of Education and the Institute for Educational Research at the University of Jyväskylä with the financial support from the Ministry of Education. 49 researchers from Denmark, Norway, Sweden and Finland took part in the symposium. The report includes seven papers read during the symposium, reports from working groups and summaries of discussions, as well as the minutes of the annual meeting of Nordic Society for Educational Research and the rules of the society.

41. **Ylinentalo, O. & Koppinen, A. & Poutiainen, A. & Suomalainen, M. & Toiviainen, J.** (1973) **Automaattisen tietojenkäsittelyn ja osituskäytön opas. ATK-perusteita. - A guide to data processing and batch processing.** Report 212.117 p. ISBN 951-677-232-3 *

The guide provides a survey of the general development of data processing and the development in different universities. The guide has been made primarily for general teaching purposes and it tries to provide basic information for those who want to familiarize themselves with data processing. The guide deals particularly with the main features of batch processing and time sharing, the compilation of files, computer programming and the preparation of run-throughs.

40. **Kajava, K.** (1973) **Komparatiivisen pedagogiikan opetuksesta ja tutkimuksesta maamme korkeakouluissa 1969-1971. - On the teaching and study of comparative education in institutions of higher education in Finland 1969-1971.** Report 205. 93 p. ISBN 951-677-195-5

The purpose of this brief study is to make a survey of the position of comparative education in the institutions of higher education in Finland including teacher training colleges, and to make proposals for the development of

teaching and research in the field. The impetus for the plan of work was given by an inquiry concerning comparative education carried out by Unesco Institute for Education in Hamburg 1969.

The research material consists mainly of written source material, such as the curricula, the annual reports and the examination requirements of institutions of higher education and the 1969-71 cataloques of studies in progress and completed studies published by the Institute for Educational Research. The number of lectures given in comparative education is relatively small in Finland, and this is obviously due to the scarcity of material and intellectual resources of a small country. The examination requirements of higher education do not require that students get acquainted with the problems of comparative education until at the cum laude and laudatur levels.

39. Sänkiaho, R. (1973) Poliittinen päätöksentekijä, tutkija/suunnittelija ja suunnittelun menetelmät. - Political decision-maker, researcher-/planner, and methods of planning. Report 197. 44 p. ISBN 951-677-155-6

The study discusses the most commonly used methods of planning and a number of statistical methods used in research which is linked with planning. The methods are analyzed from the point of view of the political decision-maker and of the researcher/planner. The study attempts to compare different methods according as they are relevant to the political decision-maker and to the researcher/planner.

Only in very few methods is it possible for the political decision-maker to influence the definition of the studied problem or the description of a given variable, whereas the researcher/planner's value structure to a great extent influences the obtained results in some methods and particularly the inferences made on the basis of the data. Political decision-makers should realize that different methods are suitable for the solution of different kind and level of problems, and that, therefore, there can be no absolute recommendation for valid methods.

38. **Pitkänen, P. & Peisa, S & Salmela, R. & Sikanen, T. & Taipale, H. (1973). Kirjallisesti ja televisio-ohjelmina tarjotun ärsykemateriaalin pituuden ja jaksotuksen vaikutuksista oppimistuloksiin korkeakouluopiskelussa. - On the effects on learning of the length and grading of stimulus material offered in writing and in the form of television programmes.** Report 193. 100 p. ISBN 951-677-143-2

The purpose of the investigation was to ascertain what would be, from the point of view of learning results, an optimal amount of teaching stimuli to be given to students in relation to students' independent, active response during a lesson (study period).

An attempt was made to develop the comprehension and acquisition of information as well as students' planning skill and critical thinking during the study periods. It seemed that most suitable for halfhour teaching programmes were programmes involving only the carrying out of tasks (fully reaction-oriented), programmes based entirely on TV-viewing (fully stimulus-oriented) or programmes involving alternation of stimulus presentation and response, so that two thirds is used for presenting teaching material and one third for response.

The acquisition of information is improved on the one hand by highly stimulus-oriented programmes (nearly 30 minutes long) or reaction-centered programmes, which include penetrating TV-sections. Medium long and longer programmes (containing an egual amount of response and TV-viewing) seemed to be more suitable for promoting ideas and critical responses than short programmes.

37. **Pirttimäki, R. & Silvennoinen, M. (1973) Erittely opetuskäyttöön tarkoitettujen televisio-ohjelmien tuottamisesta. - A review of the production of educational TV-programs.** Report 191. 101 p. ISBN 951-677-141-6

The emphasis in the research project's work was on defining the effects on learning of the length and staging of television programmes used in higher education. Independent production of television programmes was necessary for carrying out the investigation. On the basis of the experiment it is evident that the production of television programmes is secured by

experience gained through training within industry. The technical level of production equipment primarily influences the possibilities of visual realization. Specifying the pedagogic qualities of the teaching programmes and ensuring their visual versatility demands lengthy planning and knowledge of teaching objectives. The teaching staff cannot be responsible for the production of the programmes and the planning of their contents, but separate technical staff is needed if the intention is to carry out programme production on a larger scale in higher education. The results of the experiment can be applied in the organizing of demonstrative teaching and programme production of small television installations.

36. Eronen, Y. & Konttinen, R. & Nuutinen, A. & Panhelainen, M. (1973) Tutkinnonuudistuskokeilun valmistelu Jyväskylän yliopiston kasvatus- ja yhteiskuntatieteellisessä tiedekunnassa. Katsaus ensimmäisen vaiheen dokumenttiaineistoon. - **The development of the experimental training programs in the Faculty of Educational and Social Sciences at Jyväskylä University. A review of the first phase.** Report 190. 58 p. ISBN 951-677-137-8

The report mainly describes by documents the development of examinations initiated by the Faculty of Educational and Social Sciences at the University of Jyväskylä. This project of developing examinations is the first and at the moment the only one which concerns a whole faculty.

Firstly the report outlines how the work in higher education has developed in this recent direction and how experimental work and research is related to the development of examinations. Secondly based on documents the report describes the early experiences in the developmental work in higher education that have oriented the project, the preparations for it and the decision making. After that the general plans and the timetable for the work of developing the training programs, the organisation of planning and the working methods during the planning are presented.

35. Berggren, O. (1973) Kieltenopetuksen uudelleenjärjestäminen Lappeenrannan teknillisessä korkeakoulussa. - The reorganization of foreign

language teaching at the Lappeenranta university of technology. Report 187. 9 p. + appendices. ISBN 951-677-131-9 *

The report deals with the FL teaching at the Lappeenranta University of Technology. It presents the goals of FL teaching, its special features, and the new teaching programme, which is designed to serve the central aim of teaching: a good functional knowledge of a second language. Many details have not been taken up. The full-scale implementation of the new FL teaching programme requires several months of planning the system of compulsory and optional courses, the acquisition and/or preparation of teaching material, and the setting up of an effective evaluation system. These matters can, however, be planned first after the outlines of the teaching programme have been duly approved and confirmed.

34. Jalkanen, H. (1973) Korkeakoulujen oppilasvalinta. - On student selection in higher education. Report 173. 79 p. ISBN 951-677-087-8

Student selection in higher education has become a central issue in educational policy, because the demand for academic manpower has increased in several fields and because not everybody who fulfils the requirements gets into institutions of higher education.

The selection procedure varies from institution to institution. There has been a very limited amount of co-operation, and multiple application is common. In 1971 about one quarter of the applicants were accepted into institutions of higher education. About half of them were students who had matriculated the same year, and under 10 % were other than matriculated students. About 10 % of the applicants got the right to study on the basis of school reports and about 14 % of those taking part in the entrance examination got it on the basis of the examination. Enough regard is not always paid to providing information to applicants and to conditions for legal security in selections. The most important selection criteria are school reports and the entrance examination. The report are related to the applicant's social and educational background whereas the entrance examination is largely independent of them.

33. **Stellmacher, D.** (1973) Grammatiktheorie und Sprachunterricht. - **Grammatical theory and language teaching.** Report 172. 47 p. ISBN 951-677-086-X *

The aim of the present study is to analyze the relationship between grammatical theories and language teaching. First, the author deals with some psychological aspects of language learning and with the connections between L1 and L2. The objectives and methods of language teaching are analyzed, and some views are presented on the relations between linquistic theories and theories of learning. Finally, the author reviews the use of technical aids in language teaching.

32. **Kettunen, P. & Reitti, J. & Turtiainen, K.** (1973) Kustannus-hyötyanalyysi ja koulutuksen suunnittelu. - **Cost-benefit analysis and educational planning.** Report 170. 69 p. ISBN 951-677-084-3

In the first part of the study the basic hypotheses of the cost-benefit analysis and the mathematical methods used in it are examined paying special attention to the suitability of the method for preparing decisions which take into account the objectives of several interest groups. The cost-benefit analysis is also compare with other methods of educational planning. The second part of the study deals with the suitability of the cost-benefit analysis for quantitative educational planning.

The problem area is divided in three parts. In connection with the quantitative problem of education methods are sought for analysing the needed amount of educational supply and educational demand. In the problem of the structure of education an attempt is made to find possible ways of comparing the alternatives concerning the arrangement of educational programs, education units of different size and other questions of educational structure. The study is, however, most succesful in developing methods for solving problems of location i.e. the placement of an educational unit.

31. **Elovainio, P.** (1972) Yhteiskunnan muutos ja korkeakoululaitoksen rakenne. - **Social change and the structure of higher education.** Report 160. 29 p. ISBN 951-677-066-5

Studies on the relationships between higher education and other sectors of society have indicated that there is a clear correlation only between the frequency of higher education studies and the level of economic development.

The present study attempted to reveal some relationships between the frequency of different branches of study and the level of societal development. Most of these relationships proved curvilinear. Variations in the relative frequency of different branches of study and the level of societal development. Most of these relationships proved curvilinear. Variations in the relative frequency of different branches of study show a certain kind of sequence, which is connected with the level of social and economic development and with the changes of economic and occupational structure. The direction of higher education was also determined by the historical background of higher education and the differences in social goals of various political systems.

30. **Koppinen, A.** (1972) Arviointitekniikkaan liittyvistä tekijöistä ja niiden vaikutuksesta arviointipiirteiden dimensioisuuteen. - **Factors related to rating technique and their effects on the dimensions of rating traits.** Report 157. 32 p. ISBN 951-677-063-0 *

The purpose of this survey is to present some factors related to rating technique and to find out their influence on the dimensionality of rating traits, in the light of previous studies. The concepts related to rating technique have been divided into two parts, dealing with the collection and analysis of the material. The factors which have an influence on dimensionality have been described by presenting results from relevant studies.

29. **Lehtonen, J.** (1972) Äänitallenteet, tallennuslaitteet ja puheopetuksen apuvälineet. - **Sound recordings, recording equipment and the technical aids in speech correction.** Report 155. 28 p. ISBN 951-677-059-2 *

The present publication is written for those students and teachers of speech education, foreign languages and other special fields who in their work or studies have to deal with recording of speech tape-recordings, and the

various electro-accoustic speech instruction and research equipment. The user of sound recordings is familiarized with the activities that have been found to be the most difficult, the various uses of sound recordings and recorders are presented together with a review of the electro-acoustic teaching aids and the methods of analyzing sound recordings. The equipment, their use and other technical details are not discussed; the instructions are not , however, meant to replace the ordinary instructions for use. The report may partly serve as a supplement to an earlier report "Manual for writing language laboratory programmes" (82/1971) in the same series.

28. **Renko, M. & Parvela, T.** (1972) Opettajankoulutuslain (L 844/71) mukainen organisaatiouudistus Jyväskylän yliopistossa. - **The organizational reform of teacher training at the University of Jyväskylä.** Report 148. 33 p. ISBN 951-677-047-9 *

The study dealt with the wiplementation of the Teacher Education Act of 1971 at the University of Jyväskylä and suggested some organizational solutions concerning teacher training. The report was based on the above-mentioned Act and the accompanying instructions of its application, proposals for the reform of university administration, the present administrative system of the University's teachers college, information about the number of teacher trainees at the University and the latest legislation concerning the administration of schools.

27. **Vartola, J.** (1972) Päätöksentekoprosesseista korkeakouluissa. - **On the decision-making processes in universities and colleges.** Report 143. 82 p. ISBN 951-677-038-X

This study is a part of the university administrative reformproject. The investigation was carried out theoretically and it explored the Finnish system of higher education, individual universities and colleges in the light of the aims of higher education.

Along these lines university administration can be described as a medium for the implementation of the aims of higher education. Furthermore an attempt was made to illustrate the present system of university administration through the

decision-making process. In addition the system of university administration was explored on the basis of task division and decision power on the various levels in relation to the progres of matters being decided upon. Finally the decision-making process was evaluated on the basis of available criteria.

26. **Kalaja, P & Lillberg, J. (ed.)** (1972) Korkeakoulututkijoiden ja opintoasiainvirkamiesten neuvottelupäivät Jyväskylän yliopistossa 25.-26.11.1971. Alustukset ja keskustelupuheenvuorot. - **Higher education researches and 'study advisors' conference at the university of Jyväskylä, Nov. 25th and 26th, 1971. Introductions and comments.** Report 138. 94 p. ISBN 951-677-030-4 *

The conference arranged in Jyväskylä belongs to a series of conferences to be held on higher education research and higher education administration. Fourty higher education re--searchers, planners and study advisors participated in the conference.

With regard to higher education investigations the conference dealt with the present state of research on the field, and furthermore an attempt was made to try and create a new organization to cover research both on the national and university level. In matters concerning the administration of the study advisory system main emphasis was laid on the goals of advisory work and the training of study advisors.

25. **Jalkanen, H.** (1972) Korkeakoululaitoksen kehittämislainsäädäntö ja sen tulkinta. - **The legislation of higher education and its interpretation.** Report 136. 75 p. ISBN 951-677-028-2

The legislation of higher education defines the quantitative expansion of higher education in 1967-1981. Up to 1971 the progress has approximately followed the time table, even though notable differences can be found between departments as regards teacher resources. Teacher resources affect directly among others the relative amount of higher academic theses and dissertations.

Recent discussions have emphasized the definition of goal-setting in higher education, the sufficiently extensive time table of planning

and implementation and coordination on the university/college and state levels. In addition to the training of a certain number of students and the maintenance of the academic level in our country ever growing attention has been paid to the demand of labour and resources, and the improvement of our educational level.

24. **Määttä, P.** (1972) Vertaileva analyysi korkeakouluhallinnosta II: Korkeakoulujen voimassa olevat ja hallinnonuudistustoimikuntien ehdottamat hallintomallit. - **A comparative analysis of university administration II: The administrative models presently in force and those proposed by the Committees on the University Administrative Reform.** Report 135. 79 p.
ISBN 951-677-025-8

The present administrative models and those proposed by the Committees on University Administrative Reform have been compared in relation to the administrative structure, the composition of administrators and the division of decision power.

In the structure of university administration the proposals made by the committees would mean uniformity especially with regard to central administration. The Committees are prepared to change the composition of the administrations so that other representatives as well as professors could participate in the decision-making process. Only a few of the Committees are prepared to apply the so-called one man - one vote principle on all levels of administration. In actual decision-making the Committees propose that drafting power in the first place should be passed to administrators on the department level. In questions concerning sciences, decisions should be made on the basis of expert opinions.

23. **Lillberg, J. & Koskinen, I. & Loikkanen, E.** (1972) Luettelo suomalaisista korkeakoulututkimuksista 1960-1971. - **A list of Finnish higher education studies 1960-1971.** Report 132. 29 p.
ISBN 951-677-021-5 *

The list presents bibliographical data of 455 Finnish studies on higher education, committee reports and articles in scientific journals. According to a UDC-classification 24 per cent

of the publications present research results on university and college administration, 23 per cent teaching and studying, 17 per cent the student body and student life. 15 per cent scientific research or higher education in general and the rest 21 per cent on other fields of research. The list is a part of the report 118/1971.

22. **Lillberg, J. (1971) Korkeakoulututkimus Suomessa. - Investigation of higher education in Finland.** Report 118. 35 p.

The need for investigations of higher education and the coordination of the investigations has greatly increased as a result of the changes in Finnish higher education. The purpose of this study is to serve as a basic survey for the development of research into higher education. Data was collected from higher education investigators by two different questionnaires in the fall of 1971; 1) information on completed studies and those in progress (316 replies) and 2) information on research priorities (349 replies).

The results indicate that investigations into higher education are at present narrow, incoherent and for the most studies for attaining a degree. Teaching methods, the tasks and successful results of higher education, student selections and the examining system are fields where further studies are urgently needed.

21. **Määttä, P. (1971) Vertaileva analyysi korkeakouluhallinnosta I. Korkeakoulujen tarkoituksen, autonomian ja sisäisen hallinnon kytkennät. - A comparative analysis of administration in higher education I. The relations between the autonomy, purpose and internal administration of universities and colleges.** Report 117. 40 p.

The study deals mainly theoretically with the internal administration of universities/colleges as a phenomenon strictly related to the autonomy and purpose of higher education. Autonomy was divided into two components, the political and the economic by which a typology illustrating the autonomy of universities and colleges was constructed. According to their purpose the universities/colleges were divided into academic, technocratic and social-critical

institutions, each of which has its different social, implicit and explicit functions.

The investigation lends support to the idea that the autonomic, academic university model is slowly dissappearing, and that the reorientation of higher education depents primarily on two adjustable facts, which again correlate with each other, namely: autonomy and the internal organization of administration.

20. **Jalkanen, H. (1971) Korkeakouluopiskelijan oikeusturva. - Legal security of university and college students. Report 116. 71 p.**

The study deals with the legal security of university and college students in different conditions. Data were primarily collected by a questionnaire presented to students (N=1020), heads of departments (N=157) and rector's offices (N=12) in the spring and summer of 1971.

Results: 1. The realization of legal security varies in the different universities and colleges and the different fields of science. It seems to be related among others to decision making resources. 2. Differences exist in the administration of justice between different groups of people, among others in the suing for justice and decisions caused by the various conditions and heterogeneous practices. 3. Students' suing for justice has increased compared to other groups, but legal proceedings are not, however, started in all cases. 4. Of the decisions concerning students approximately every other decision does not fulfill the most important requirements of legal security: publicity and groups for the decisions.

19. **Lillberg, J. (1971) Korkeakoulujen oppiainelaitosten hallintokokeiluista saadut kokemukset. - Experiences received from administrative experiments in university and college departments. Report 111. 52 p.**

The main purpose of the study was to examine experiences received from the present administrative experiments and reforms on the department level. Data were collected by questionnaires from 222 departments and 469 representatives of department administration. One third of the representatives of department administration were professors, one third other

teachers or officials and the last third students.

Experiences received from the functions of department administration were alltogether positive. The grounds for the selection of an administrative has not consistently affected the experiences. Of other factors involved the office of the person answering has most influenced the experiences as well as the ideas for the organizing of department administration.

18. **Marin, M. (1971) Assistenttien asema ja tehtävät korkeakouluissa I. - The position and duties of assistants in universities and colleges I. Report 110. 85 p.**

The position and duties of assistants are described in the study on the basis of assistants' answers to certain questions, and also on the basis of university statutes, regulations and assistant regulations. The main emphasis is on the clarification of assistants' work-experiences and conditions. 803 answers were included in the data processing which was performed university by university, and department by department. Results: 1) The mobility of assistants is great, 2) the position and duties of assistants change subject- and faculty-wise more than university-wise, 3) the position of assistants has declined to a great extend at the end of the 1960's, and 4) the emphasis of teaching and teachers has shifted towards lower and more temporary teaching staff.

17. **Hakkarainen, P. & Kiltti, R. & Suhonen, R. (1971) Yliopisto-opetuksen suunnittelusta. - On the planning of higher education. Report 90. 47 p.**

This article is a theoretical analysis concerning goal-setting; goals and objectives in university teaching, planning of goals and objectives and technological planning model of teaching.

As regards the conditions of goal attainment the article deals briefly with the organizational framework, the relation between teaching and learning, study motivation, and teaching methods and equipment. Teaching methods and equipment have been analyzed from the point of view of different types of teaching situations.

In the end the article deals with evaluation, different forms of evaluation, and it's functions and techniques.

The survey forms a part of the activity of the Advisory Council for Reforming the Examination System of Philosophical and Social Science Faculties. The study has been supported by the council.

16. **Marin, M. & Määttä, P. & Lillberg, J. & Jalkanen, H.** (1971) Korkeakoulujen sisäisen hallinnon uudistaminen. - **Reform of Administration in Higher Education.** Report 89. 86 p.

The review is divided in four parts. The first prat deals with the values and objectives of higher education on the one hand from the point of view of university/college community, and with the relevance of these viewpoints to the administration in higher education. The second part describes the shift of emphasis from quantitative (greater enrolment) development to qualitative development (reform of administration). The third and fourth parts analyze the present administration in some colleges and universities which is based on faculty position and discuss some proposals and imitatives for administrative reforms.

15. **Berggren, O. & Black, C. & Gustafsson, M. & Lindqvist, P. & Piippo, T.** (1970) Ohjeita kielistudio-ohjelmien laadinnasta. - Manual for writing language laboratory programmes. Report 82. 77 p.

The report contains a description of a technological model for the preparation of teaching material applied to language labs. First, the report deals with the basic principles of programmed instruction, stages in programme planning, and the evaluation criteria and methods of the suitability of programmes. Different types of language labs, their range of performance and the general principles of language laboratory instruction including various types of programmes are discussed.

The instructions for the preparation of language laboratory programmes being with a list of the stages in programme preparation, and the qualifications needed in the various phrases. After that follows a detailed description of

each stage from the writing of the manuscript to the distribution of programmes. A select bibliography is attached.

14. Sysiharju, A.-L. (1971) Muuan koulutussysteemin kitkakohdista: uusien ylioppilaiden sijoittumisprosessi.- A point of friction in the educational system: the placement process after the matriculation examination. Report 80. 38 p. (sold out)

The study was originally carried out as a pretest for a larger survey concerning the placement process of Finnish students after secondary schooling. The subjects were 78 students having in 1970 taken the matriculation examination in the rural municipality of Janakkala. The students mailed their applications during the summer, and answered the questioinnaire in September.

The results show that only 40 % of the students in question had succeeded in getting an admission and that 58 % of them had a provisional placement, mostly in temprary work. 80 % of those interwieved had, however, sent applications, most of them to several schools. Less than a half of these applications had been accepted.

13. Karvonen, J. (1971) Opettajainvalmistuslaitokset opiskelijoiden eräiden persoonallisuudenpiirteiden, asenteiden ja normien valossa II. Opettajiksi valmistuvien persoonallisuudenjäykkyydestä ja anomisesta vieraantumisesta. - Teacher training colleges in the light of students' personality traits, attitudes, and norms II. On the rigidity of personality and anomic alienation of teacher education students. Report 77. 21 p. ISBN 951-677-241-2

The object of the study was to clarify the rigidity of the personality and the anomic alienation of the students in teacher training colleges and also the changes in these charcteristics during the training. The institutions studied were a seminry for male students and female students, Teacher Education Colleges and the University Teachers' College.

The rigidity of personality was divided into five sub-divisions: (1) conflict tolerance, (2) dissonance resistance, (3) dogmatic conserva-

tism, (4) conscientious diligence, and (5) ideological consistency.

Teacher training colleges did not differ from each other in the personality variables, and no appreciable changes took place during the training. In the anomic alienation there obtained differences between the different teacher training institutions in accordance with the stated hypotheses: seminary students proved more anomic than college students.

12. **Konttinen, R.** (1970) Opiskelijoiden englannin kielen taitojen ja niiden oppimisen yhteydet verbaaliseen lahjakkuuteen ja persoonallisuuden piirteisiin. - **Relations of university students' previous attainment and learning of English to verbal aptitude and personality traits.** Report 70. 38 p. *

The objects of study were the relationships of verbal intelligence, fluence of expression, neuroticism, and extraversion to previous attainments (PA) and the gain in English. The treatment were language laboratory teaching, the traditional method (55 hrs. each), and the control condition. Ss (N=55) were university students who did not study languages. Achievement tests covered all 5 skills.

Results: (a) Although both methods resulted in significant improvement, individual differences were stable over the treatments, except for fluency of expression. (b) Of the PA-tests speaking and reading comprehension (.49) and mastery of structures (.42) correlated most highly to the V-factor. (c) Gain in reading comprehension alone was related to verbal aptitude. (d) Correlations of the questionnaire scales were minimal. (e) The PA-test revealed the factors for use of English, comprehension, vocabulary and structures, of which the last two intercorrelated highly.

11. **Karvonen, J.** (1970) Opettajainvalmistuslaitokset opiskelijoiden eräiden persoonallisuudenpiirteiden, asenteiden ja normien valossa I. Opettajiksi valmistuvien uranvalintamotiiveista ja uskonnollisista normeista. - **Teacher-training colleges in the light of students' personality traits, attitudes and norms I. On**

the motive for career choice, and the religious norms of teacher education students. Report 67. 60 p.

Three kinds of teacher training colleges were studied: 1) women's and men's seminars, 2) separate teachers' colleges, and 3) teacher training colleges affiliated to universities. The group of the univewrsity students of the Faculty of Education and Social Sciences who had education as their major subject was as a control group.

The general order of importance of the motives was the following: 1) socially most desirable motives, 2) motives connected with teaching as a profession, and 3) motives reflecting the direct influence of other people. The religious norms were most rigid in seminars, next rigid in teachers' colleges, and most liberal among university students. Students' norms changed less rigid i.e. students became more liberal during the course of study.

10. Karvonen, J. (1970) Opettajien asenteet, odotukset ja oppimistulokset jatkokoulutuksessa IV. Peruskoulupedagogiikan radio- ja tv-kurssin osanottajien asennemuutokset kurssin aikana. - **Teachers' attitudes, expectations, and learning results in further training IV. The attitude changes of the participants in a radio and TV course on comprehensive school didactics.** Report 66. 102 p.

The purpose of the study was to find out how the attitudes of teacher attending a further course on comprehensive school reform (the course on comprehensive school didactics) towards the school reform and some closely related objects change during the course. The test group consisted of primary and secondary school teachers participating in the course. The control group consisted of non-participating primary school teachers. the attitudes of secondary school teachers became clearly more positive towards the school reform during the course. The test group became homogenized in all fields of attitudes expect the "control-attitudes", attitudes towards school democracy. In the attitudes of the control group changes took place in the one attitude field only: attitudes towards further training became more negative during the course.

9. **Telama, R. (1970) Opettajien asenteet, odotuk set ja oppimistulokset jatkokoulutuksessa III. Peruskoulupedagogiikan radio- ja tv-kurssin osanottajien kurssia koskevat odotukset ja käsitykset kurssin alkaessa. - Teachers' attitudes, expectations and learning results in further training III. Expectations and opinions of the participants in a radio and tv course on comprehensive school pedagogics at the beginning of it.** Report 65. 21 p.

The study forms a part of a larger research program whose aim is to find the effects of a broadcast further training program for teachers. The purpose of the present investigation was to describe the attitudes and expectations of the participants in a radio and TV course on comprehensive school pedagogics at the beginning of the course. A random sample of 769 primary and 310 secondary school teachers and a control group of 309 primary school teachers were chosen for the study.

Estimations of attitudes and expectations were mainly concerned with the objectives and content of further training and with the course on comprehensive school pedagogics. Through their opinions and expectations the teachers showed that they laid great emphasis on practical instruction. The type of school yielded the greatest differences in opinions.

8. Karvonen, J. (1970) Opettajien asenteet, odotukset ja oppimistulokset jatkokoulutuksessa II. Peruskoulupedagogiikan radio- ja tvkurssin osanottajien asenteet kurssin alkaessa. **- Teachers' attitudes, expectations and learning results in further training II. The attitudes of the participants in a radio and TV course on comprehensive school didactics.** Report 64. 46 p.

This report concentrates on the results of the first measurement of the whole study. The problems of the study divided into two main groups, those concerning 1) the attitude theory, and 2) concrete objectives. The subjects of the study (primary and secondary school teachers) consisted of a test group (1079 subjects) and control group (413 subjects). The former participated in the course, the latter did not.

The attitude theory and the attitude differential used as a measuring instrument proved suitable. Teachers' attitudes towards comprehensive school reform were generally dependent on the type of school they represented. Primary school teachers had more positive attitudes than secondary school teachers towards the school reform, and the results were the same in all attitude components.

7. **Karvonen, J. (1970) Opettajien asenteet, odotukset ja oppimistulokset jatkokoulutuksessa I. Teoreettinen kehys. - Teachers' attitudes, expectations and learning results in further training I. Theoretical frame of reference.** Report 63. 30 p.

This study is concerned with a given in-service training programme for comprehensive school teachers broadcast by radio and TV. The purpose of the study is to gather as much as possible of such information which could be useful in planning future further training programmes for comprehensive school teachers.

The objects of the investigation are teachers' attitudes towards 1) school reform and related, more specific matters, 2) further training, and 3) educational research acitivity. Additional objects are 4) teachers' opinions on the necessity and contents of further training course, 5) expectations concerning the course, 6) motives for participation in further training, and 7) learning results attaining the course.

This report consists of the description of the theoretical frame of reference of the study.

6. **Renko, M. & Hakkarainen, P. (1970) Tutkimus televisio-opetuksen pedagogisesta tarpeesta Suomen korkeakouluissa. - Study of the pedagogical need of TV-instruction in Finnish universities.** Report 58. 17 p. *

The study was carried out at the commission of the Committee for TV-instruction in universities set up by the Ministry of Education. 47 subject experts on university-level instruction were presented a list of learning situations favourable for TV-instruction. They stated in an oral interview how many hours of these-situations should occur during an academic year. The greatest need of TV-instruction was

found in educational studies in teacher-training (over 90 % of lessons), physical education (48 %), medicine (43 %), and educational and social sciences (23 %).

5. **Kivistö, K.** (1969) Jyväskylän yliopiston opiskelijakunta 1966. - **The students of the University of Jyväskylä in 1966.** Report 51. 46 p. * (sold out)

The object of the study concerning those students without family who enrolled in the University of Jyväskylä in autumn 1966 was to obtain descriptive information about 1) the demographic and social composition of the students, 2) their social problems of study, 3) the degree of participation , and the diificulties they encounter, and 4) matters connected with their achievement in studies. The major part of the report consists of the description of results obtained from a sample of 1/3 of the population, in which the number of students was 699.

The results indicated parallel relationship between achievement and social status. It seemed probable that the children of parents with a social status lower than average were less likely to enter the university, and that the effect of the social backround continued during the period study. The effect was manifested specially through difficulties in financing: students from lower social groups financed their studies by loans more frequently than the average, this again being related to the amount of economic problems. Furthermore, these problems predicted weaker success than expected on the basis of the students' school success.

In other words, the low social status of the parents has continual effect in the couse of studies, creating circumstances which make it difficult for students to have the kind of achievement in their studies which could be predicted on the basis of their earlier school success.

4. **Telama, R.** (1968) Jyväskylän yliopiston liikuntatieteellisen tiedekunnan valintakokeiden validiteettitutkimus. - **A study of the validity of the selection tests of the physical education department of the University of Jyväskylä.**

Preliminary report. Report 40. 24 p. * (sold out)

In the year 1967 the applicatns of the physical education department received a rating scale, where their physical education teracher had to rate their students' personaliity traits, their suitability as teachers and their motor skills. This report presents the distributions of the ratings and some of their correlations with the selection tests. In most of the various events they distinguished between the accepted applicants and the rejected applicants, though the correlations between the ratings and the selections tests were not very high. The teachers expressed as their opinion that they have a good possibility to rate their students' personality traits, their suitability as teachers and their motor skills. It is recommended that the experimentation with the teacher rating scale be continued.

3. **Telama, R.** (1967) Jyväskylän yliopiston liikuntakasvatuksen opintosuunnan valintakokeiden validiteettitutkimus. - **A study of the validity of the selection tests of the physical education department of the University of Jyväskylä. Preliminary report.** Report 37. 31 p.

The purpose of the study was to investigate the power of the selection variables to predict the work success of the teacher of physical education. This report first deals with the meaning of some central concepts in decision theory in regard to student selection. Means, standard deviations are given together with correlative information. Regression analysis has been carried out with study success as the criterion.

The selection variables are: school success, tests in gymnastics, ball games, track and field, swimming, and a knowledge test of winter sports, Allport-Vernon Study of Values, Eysenck Personality Inventory, and a verbal delivery examination. The correlations and regression coefficients indicated that attitude and personality variables may play a considerable role in the selection of physical education students.

2. **Kirjonen, J.** (1966) Liikuntatieteiden opiskelijoiden liikuntakasvatuksen tavoitteita ja eri urheilumuotoja koskevat mielipiteet sekä niiden muuttuminen peruskoulutuksen aikana. - The opinions of the students of physical education on the aims of physical education and on different sports, and the changes in their opinions during their basic studies in university. Report 27. 36 p.

A questionnaire was used in the study and it was presented to the research population (24 women and 24 men) twice, in autumn 1963 and in spring 1966. The results show that the development of a permanent interest in physical exercise is regarded as the most important goal, but also the expressive functions (joy and recreation) are considered very significant. The ranking of the health aspect seems to fall during the studies. The order of the relative importance of the different kinds of sports changes noticeably during the study period. Both groups do not any more rate high gymnastics on apparatus. Besides, women do not any more give much value to track and field nor men to gymnastics. The ranking of traditional folk-dancing, dancing, cross-country skiing and path finding (women) and the ranking of cross-country skiing, swimming and ball games (men) rises most during the studies.

1. **Lyytikäinen, V. & Malinen, P.** (1966) Opettajakokelaiden matemaattisen koulutuksen tasosta. - On student teachers' level of mathematical education. Report 18. 12 p. *

The research aims to determine the level of mathematical education of the future primary school teachers in that field of mathematics they will be teaching in primary schools. The tested students (342) studied either in teacher training colleges or in seminar colleges, and there were differences in the amount of earlier education and in the amount of mathematical education.

The best results were obtained by the teacher training college students who had had a long course in mathematics in the secondary school; the worst results were obtained by those students who had had a long course in foreign languages and a short course in mathematics. The future teachers' level of knowledge clearly surpassed the respective level of 13-year-old school children.

INSTITUTE FOR EDUCATIONAL RESEARCH. BULLETIN. UNIVERSITY OF JYVÄSKYLÄ. ISSN 0357-122X

48. **Lestinen, L. (ed.) (1985) Tieteellisen koulutuksen nykykohtia. Jyväskylän yliopistossa 3.-4.9.1984 järjestetyn II korkeakoulututkimuksen symposiumin artikkelit. - Current aspects in higher education in Finland. Papers presented at the second symposium on research into higher education at the University of Jyväskylä.** Bulletin 260. 364 p. ISBN 951-679-323-1

The report contains a survey of HE research as a background force in Finnish HE policy, two general papers on the acquisition of scientific thinking and a total of 21 articles from the different thematic sessions of the symposium. The themes included theoretical and occupational work, the functions of the HE institution, student selections and study careers, HE pedagogics and learning, research into teacher education and issues related to commercial education and language teaching.

47. **Konttinen, R. & Nuutinen, A. & Panhelainen, M.** (1984) Korkeakoulutuksen ja työelämän välisten yhteyksien tutkimus pedagogisesta näkökulmasta. - **Pedagogical aspects of research on higher education and work life.** Bulletin 248. 50 p. ISBN 951-679-180-8 *

The report contains a study of certain problem areas in the relationship between higher education and work life. Besides some general themes the ones discussed include research into the examination system and curricula, HE students and learning, and ADP and HE teaching, as well as research into HE studies through an analyses of tasks.

46. **Antikainen, A. & Panhelainen, M. & Parjanen, M.** (1984) Yliopisto tulevaisuuttaan etsimässä. - **University seeking its future.** Bulletin 243. 127 p. ISBN 951-679-122-0

The publication contains three articles on future alternatives and development problems in higher education. Firstly there is an analysis of schools and ways of thinking appearing in the debate on higher education policy and in future studies. The second article examines the relationship between higher education and work

life from the point of view of vocational stereotypes, recruitment, computer-assisted teaching, management education and the training of administrative personnel in higher education. The third article contains views of European higher education researchers on the conditions for changes in universities, and a deliberation of these views on the basis of the situation in Finland.

45. **Kytönen, A.** (1984) Kasvatustieteellistä sanastoa: ranska-suomi-ranska. **Vocabulary of education: French-Finnish-French.** Bulletin 241. 216 p. ISBN 951-679-111-5 *

This special vocabulary contains around 2500 French terms and their Finnish equivalents. In addition to scientific terms, also words belonging to everyday language have been included. The vocabulary has been compiled to promote and facilitate the usage and knowledge of French material in education in Finland. It has been primarily for researchers.

44. **Helenius, S.** (1983) Kasvatus rauhaan ja kansainvälisyyteen. -**Education for peace and international understanding.** Bulletin 236. 108 p. ISBN 951-679-075-5.

This report which has been drafted in the planning stage of the project on peace education seeks to outline peace education from different viewpoints and to create a general picture of peace education.

The present-day situation of peace education (mainly in Finland) and its development needs and trends are clarified and references are made to the research areas in education and psychology which could serve as a basis for the development of a more integrated view of educating a peace-loving personality.

The concepts of peace, peace education and related concepts, the objectives and contents of peace education on different cultures, the methodological principles and the role of teacher and learning material in peace education are discussed in the report. The report also describes the realization of peace education in Finnish educational objectives and educational practice in the different sector of education and at different ages from early

childhood to adulthood. Furthermore peace education is examined in relation to what is known about the development of children and youth and finally, a survey made of research an peace education.

43. **Lestinen, L. (1983) (ed.) Katsaus suomalaiseen korkeakoulutuksen alan kirjallisuuteen ja aikakauslehtiartikkeleihin vuosilta 1980-1982. - A survey of Finnish literature and periodical articles related to higher education from the years 1980-82.** Bulletin 228. 54 p.
ISBN 951-679-069-0 *

This survey-type bibliography is a compilation of references to literature on higher education from 159 books and 86 periodical articles which have been published in Finland during 1980-1982. The references have been obtained from the Finnish ADP-based data bank (KATI) of literature and periodical articles. The introduction to the bibliography examines the usability of KATI for this type of rather extensive information retrieval.

Approximately one hundred (in 1983) research libraries, university libraries, business libraries and an increasing number of public libraries have direct access to KATI through their terminals. KATI is maintained by the Automation Unit of Finnish Research Libraries.

42. **Lestinen, L. (1983) (ed.) Kasvatus- ja koulutusalan tutkimusrekisteri 1982: Korkeakoulutusta, kasvatustiedettä ja aikuiskasvatusta koskevat tutkimukset. - Educational research in Finland in 1982: higher education, science of education and adult education.** Bulletin 226. 77 p. ISBN 951-679-003-8

The Institute for Educational Research has since 1971 kept a record of Finnish educational research projects. The 1982 research register is published in five separate volumes; the present publication contains the research projects related to higher education (28), science of education (8) and adult education (4).

Each project description includes the following information: the names of researchers and scientific supervisors involved in the project, the present stage of the project (in progress/completed), the source of finance, the

place where the project has been carried out, the publications and concise summary of the backround, the aims, the methods and the results of the project. The names of the projects, the research institutions and the keywords are in English, too.

41. **Kyöstiö, O. K.** (1982) Viimeaikaista kasvatustutkimustamme III: kasvatushistorialliset tutkimukset. - **Recent educational research in Finland. Part III. Research in educational history.** Bulletin 198. 53 p.
ISBN 951-678-748-7

This report is the last part of the series on recent educational research in Finland. The objects of study in this part are the studies in educational history written in Finlnd during the years 1965-80. On the basis of a classification constructed by the author, his- torical studies belonging to the following categories are examined: 1) general presentations on educational history, 2) the theory of education, 3) the structure of education, 4) the educational process, 5) teacher training, 6) histories of schools and personal histories, 7) the history of research.

The author evaluates several studies, points out gaps in the research in the field and makes proposals for objects of research. An appendix presents a list of the monographs which have been published during the period in question.

40. **Pakarinen, S.** (1982) Luettelo kotimaisista korkeakoulutukseen liittyvistä tutkimuksista, selvityksistä ja muusta kirjallisuudesta vuosilta 1976-1980 sekä opinnäytteistä vuosilta 1976-1981. - **List of research reports, surveys and other literature related to higher education published in Finland during 1976-1980 and of theses completed in 1976-1981.** Bulletin 195. 96 p. ISBN 951-678-711-8 *

The list contains a total of 715 references to Finnish literature and theses related to higher education. 230 of the references are research reports printed in 1976-1980, 263 are unprinted theses for licentiate's or M.A. degree from 1976-81 and 222 are printed or unprinted committee and workgroup reports related to the planning and development of higher education and other literature in the field completed in

1976-80. The material is in alphabetical order according to author or title. The bibliography contains a subject index and a name index.

39. **Jalkanen, H. & Määttä, P.** (1982) Opiskelijavirrat ja koulutukseen valikoituminen 1970-luvun Suomessa. - **Student flows and students' career choices in Finland during the 1970's.** Bulletin 193. 71 p. ISBN 951-678-716-9

This report contains a survey of students' career choices in secondary-level and tertiary-level vocational education in Finland during the 1970's. It maps present student flows, factors influencing the process of career choices and various starting points for research. Students' career choices are examined as a process during which the characteristics of the student group taking part in education change, mostly when students move from one educational level to another. Student flows, the process of career choice and its end outcome are examined as a function of both institutional student selection and students' own career choice.

The project, whose background is described in this report, is a longitudinal study. At first the investigation focusses on the placement of certain age-groups who have completed their secondary-level education into further studies and employment. Later the project examines the placement of students who have started secondary-level vocational studies into different-level specialized lines and their potential entrance into higher education.

38. **Ylinentalo, O.** (1982) ASET tietokoneavusteisen opetuksen kielenä - **ASET as the language of computer-assisted instruction.** Bulletin 192. 65 p. ISBN 951-678-689-8 *

Computer-assisted instruction has been provided in other countries already for a long time. In Finland the application possibilities of this form of instruction are not yet widely known although interest in the initiation of computer-assisted instruction is clearly on the increase.

This report takes a look into computer-assisted instruction, its introduction and development in pioneering countries in the field. Main

emphasis is focussed on the construction of teaching programmes for UNIVAC 1100 computers by means of a special ASET programming language.

It has been forecasted that computer-based teaching systems will become established in different educational sectors during the 1980's. This possibility is increased by the fact that more and more schools are purchasing their own ADP-hardware and that ADP-instruction can already be provided in some comprehensive schools and in the reformed upper secondary school.

37. **Panhelainen, M. & Malin, A.** (1982) Erityisryhmien hakeutuminen humanistisiin ja luonnontieteellisiin korkeakouluopintoihin. - **Students' career choice in the humanities and natural sciences. Special groups.** Bulletin 191. 95 p. ISBN 951-678-688-X

The second report of the follow-up study focussing on subject teacher education describes the entry situation of students who started their studies in the faculties under examination but did not take part in the entrance examinations of the faculties in summer 1980 in the usual way. They consitute a fairly heterogeneous group, and the observations concerning them are in the report compared between the subgroups as well as with earlier results of the project.

The report deals, among other things, with the extend and direction of application, the criteria for the choice of study field, the aims set for studies, and occupational preferences, as well as the position of teaching profession in study plans.

36. **Panhelainen, M.** (ed.) (1981) Korkeakoulutus tutkimuksen kohteena. Jyväskylän yliopistossa 26.-27.5.1981 järjestetyn korkeakoulututkimuksen symposiumin artikkelit.-**Higher education as a field of research. Papers presented at the Jyväskylä Symposium on Research into Higher Education in May 1981.** Bulletin 179. 217 p. ISBN 951-678-618-9

The report includes the papers and articles presented at the Jyväskylä Symposium on Research into Higher Education in May 1981. They are divided into six sections containing a

total of fourteen articles on different problem areas in the higher education system.

35. **Koivumäki, S.** (1981) Kasvatustieteellistä sanastoa: saksa-suomi-saksa. - **Educational vocabulary: German-Finnish-German.** Bulletin 178. 108 p. ISBN 951-678-575-1 *

The publication contains educational vocabulary in German with Finnish equivalents and can be used e.g. by researchers. Although most of the terms are from the field of education there are also ordinary words, since German cannot be expected to be as familiar to Finnish readers as e.g. English. By compiling this vocabulary the author hopes to increase and facilitate the use of German educational material.

34. **Panhelainen, M. & Malin, A.** (1981) Korkeakoulutukseen hakeutuminen humanistisella ja luonnontieteellisellä koulutusalalla. - **Students' career choice in the humanities and natural sciences.** Bulletin 175. 222 p. ISBN 951-678-550-6

This research report is a survey describing application into higher education in two fields of education, and the data constitutes one starting point for the follow-up study of subject teacher education.

Background factors had numerous connections with application behaviour. Abundant application has a positive correlation with home's high educational level, the applicant's school success and vocational certainty. Interest in teaching profession is rather low at the time of application, especially among male applicants into faculties of natural sciences. Positive attitude toward teaching profession, which was measured in terms of willingness and intention to act in teaching profession, correlates with occupational preferences indicating altruism.

33. **Nuutinen, A. & Savolainen, S.** (1980) Omatoiminen opiskelu ja sen ohjanta korkeakoulutuksessa. Kokeilu Jyväskylän yliopiston psykologisten palvelujen koulutusohjelmassa. - **On the forms and guidance of independent studies in higher education. Experimental project in the psychological services training programme in the**

University of Jyväskylä. Bulletin 164. 195 p.
ISBN 951-678-475-5

The aim of the pilot project was to acquire information on the study process of students in different phases of study and on information acquisition methods by which independent study could be investigated as well as to test different kinds of guidance methods for independent study. The pilot project was carried out among first and third-year students.

The results of the pilot project show that the study situation is extremely strenuous and pressing in both of these phases of study. The group that had received guidance in the practicing of readinesses for scientific work obtained somewhat better results, their use of time was more reasonable, and their working methods (goal-orientation, systematical planning and activeness) improved somewhat compared with the control group. Organized guidance was considered important by the students.

32. Määttä, P. (1980) Korkeakoulujen opiskelijavalintojen kustannus-selvitys. - A study on the costs of student selection into higher education. Bulletin 157. 72 p.
ISBN 951-678-424-0

The project, which is financed by the Ministry of Education, studies student selection into higher education and the costs of selection. The selection process seems to be more purposeful as a whole in fields with joint selection than in fields with university-based selection. In general also the costs due to the organizing of selections, their immediate execution and data-processing are lower per one student who has started his/hers studies in fields with joint selection than in fields with separate selection.

Especially the costs of the immediate execution of entrance examinations depend, however, also on the quantity and quality of the collected information as well as on the number of students applying into the field. The rationalization of selection by changing the application procedure of students aiming for HE in one field may increase the costs of selection in other fields.

31. **Takala, S.** (ed.) (1980) EUDISED-tesauruksen alustava suomenkielinen versio. - **Preliminary Finnish version of EUDISED-thesaurus.** Bulletin 154. 188 p. ISBN 951-678-418-6

This is a first contribution towards developing a Finnish version of the EUDISED thesaurus. The author has worked out tentative Finnish equivalents for authorized EUDISED descriptors. Thus this draft is essentially a translation of EUDISED descriptors. Its second and more immediate objective is to help Finnish researchers and documentalists in the use of EUDISED thesaurus by making it possible to search for relevant descriptors via their own mother tongue.

This is not a full-fledged version of EUDISED thesaurus. The author has not been able to indicate the logical and semantic links between different descriptors. Thus there is no indication of related terms, broader terms, narrower terms, substitute expressions ("used for"), etc. The author hopes that the present contribution is of practical use. It is also to be hoped that the work now started could soon be resumed and brought to fruition.

30. **Ollila, K.** (ed.) (1980) Mistä tietoa korkeakoulupedagogiikasta? - **Were to obtain information on higher education pedagogics? A list of periodicals, bibliographies, research and information institutes, and organizations in the field of higher education pedagogics, and an introduction to the classification of the literature.** Bulletin 149. 94 p. ISBN 951-678-351-1*

In the development of higher education pedagogics the mapping of international literature and institutes in the field is of great importance. Hence this publication was compiled by using e.g. source books in the field.

In the report (1) periodicals have been classifield by the topic. (2) The bibliography part includes bibliographies published in 1965 or later, and they are listed in alphabetical order either by the author, the title or the institute. (3) Organizations, research and information institutes, with full address are ranged in alphabetical order by the continent and the country. (4) At the end is an introduction to systems used in the classification of literature in the field.

The report is intended for anyone who needs information on higher education pedagogics. Also higher education teachers and scientific libraries may find this publication useful.

29. **Varmola, T.** (1980) Yhteiskunnallisen koulutustarpeen käsitteestä ja arvioinnista. - **On the concept and estimation of society's educational need.** Bulletin 148. 76 p. ISBN 951-678-350-3

The report contains a theoretical study of 1) what factors increase society's educational need, 2) how the satisfaction of society's educational need can be estimated with the basic methods of educational planning, and 3) what kind of methods are relevant from the viewpoint of educational planning in the estimation of society's educational need.

Educational need is determined by three social functions of education: the economic function, the function of increasing of equality/retention of inequality, and the function of cultural transmission and political socialization. Society's educational need can be estimated only to a limited extent with the traditional methods of educational planning. Only the manpower method seems to be suitable for a broader approach, in which also the connection between education and social equality could be estimated, in addition to the economic function. Finnish applications of the manpower method have, however, not used the more comprehensive approach developed in this study. Hence it is recommandable that educational planning methods are made more multi-dimensional, and more normative and political.

28. **Ylinentalo, O.** (1980) Opustin tekstisi tehokäsittelijänä. Opustimen käyttöohjeita. - **Opustin - an efficient tool in automatic text processing. Instructions for the use of Opustin.** Bulletin 139. 21 p. ISBN 951-678-301-5

The aim of the guide is to give a general picture of the use and application of the Opustin-programme in the different fields of publication. The programme allows the routine tasks of office production (the typing out of reports, guides, memoranda etc.) to be easily transferred to automatic data processing. The guide is meant for anyone who is interested in typing or writing, and it can be used even by

the researcher himself, if so desired. The use of the Opustin-programme does not require previous knowledge of automatic data processing, for most of the procedures directing the processing of the text are explained in the guide. The guide familiarizes readers especially with the typing and formulation of the text and the use of command words.

27. **Jalkanen, H.** (1980) Korkeakoulujen opiskelijavalinta vuosina 1975-1979. - **Student selection in higher education in 1975-1979.** Bulletin 138. 56 p. ISBN 951-678-298-1

The study is part of the project on student flow financed by the Ministry of Education. It examines the quantitative development of student selection in higher education in 1975-1979. Admission into higher education is based on selection, and due to the large number of applicants it is not easy at present to introduce a model which offers optimal allocation from the the applicant's point of view.

Nearly 100 000 applications were sent yearly to institutions of higher education and they represented nearly 50 000 applicants. 16 000 applications, sent by 13 000 persons, were accepted. However, only about 12 000 new students enrolled. Some of the study places remain unfilled although institutions of higher education have cut down their number by a good 1 000 during the period under study.

A centralized system for admission has curbed the increase in the number of applications and the number of students taking part in the entrance examinations, and it has also secured the filling of the study places somewhat.

26. **Määttä, P.** (1980) Ylioppilastutkinnon asema uudistuvassa koulujärjestelmässä. - **The role of the matriculation examination in the reforming educational system.** Bulletin 136. 64 p. ISBN 951-678-294-9

The report studies general considerations that have to be taken into account in the development of the matriculation examination at the end of the upper secondary school: the reform of secondary-level education, student selection into higher education, and pupil evaluation carried out by the school.

25. **Takala, S. (1979) Kielisuunnittelun kysymyksiä. - Some aspects of language planning.** Bulletin 129. 77 p. ISBN 951-678-230-2

The author has made a survey of language planning at different levels of the educational system in Finland prior to the setting up of the national commission of language planning in 1976.

A general model of the national provision of language teaching is presented. The author also discusses general problems in the planning of language teaching provision and in defining its objectives. The stimulus for the report is the author's experiences as a member and secretary of several national working parties charged with language planning tasks.

24. **Laihiala-Kankainen, S. & Nuutinen, A. (1979) Korkeakoulupedagogiikkaa Neuvostoliitossa. Yhteenvetoja ja bibliografia korkeakoulutusaikakauskirjasta Vestnik Vyssej Skoly vuosilta 1973-1976. - Higher education pedagogics in the Soviet Union. Abstracts and a bibliography of the Journal of Higher Education Vestnik Vyssej Skoly in 1973-1976.** Bulletin 125. 105 p. ISBN 951-678-220-5 *

The purpose of the publication is to present some of the most important objects of development as well as development methods that have proved succesful in the Soviet Union during the most active period of higher education development. The presentation is based an articles from the journal Vestnik Vyssej Skoly published by the Ministry of Higher Education and Secondary Vocational Education.

The report includes summaries of themes of discussion and abstracts of articles on the most important development objects, such as students' work, self-instruction, feedback in teaching, introduction into a special field, development of creativity and research include in study, as well as problem teaching. In addition the report includes the content classification of articles used in the journal and a bibliography of articles on higher education pedagogics.

23. **Kyöstiö, O. K. (1979) Viimeaikaista kasvatustutkimustamme II: tutkimusten metodologista taustaa. - Recent educational research in Finland. Part II. Methodological background of the research.** Bulletin 122. 38 p. ISBN 951-678-159-4 *

This report is a sequel to the author's report on recent educational research in Finland (IER 97/1977). This first report deals almost exclusively with positivistic educational research but does not touch upon the epistemological or methodological trends of that time.

In addition to the most common positivistic research approach this report discusses briefly the dialectic, phenomenological and hermeneutic approaches. The report is based mainly on the idea of paradigms in scientific development put forward by Kuhn. A chapter is devoted to the study of its applicability in the development of Finnish educational research. Finally, the author deliberates the problem of methodological monism vs. pluralism. The author arrives at the postulate of scientific openness, thus approaching the mainstream of the Popperian logico-analytical concept of science.

22. **Hakkarainen, P. (toim.) (1979) Näin naapurissa. Neuvostoliiton kasvatustutkimuksen ja koulutusjärjestelmän erittelyä. -The way our neighbours do it. A survey of educational research and the educational system in the Soviet Union.** Bulletin 119. 92 p. ISBN 951-678-114-4 *

The purpose of the report is to acquaint the reader with educational research and the educational system in the Soviet Union. The report is based on the study tour by the delegate of the Nordic Society for Educational Research. Verbal information has been complemented by articles.

The report deals with general education, teacher education, the work of the USSR Academy of Pedagogical Sciences, research on nursery school education, pre-school education, a new experimental programme for the teaching of music, and research on educational psychology.

21. **Remes, P.** (1979) Suomalaista kasvatustutkimusta vuosilta 1966-75. - **Finnish educational literature in 1966-1975.** Bulletin 118. 109 p. ISBN 951-678-113-6 *

The report is a collection of Finnish educational literature covering the years 1966 through 1975. In the bibliography are included research reports, surveys, reviews and textbooks in didactics published during this period of extensive educational reforms. Educational optimism and the need for research-based educational knowledge is reflected in the number of references (1 366) and authors (734). Each reference contains the following information: author(s), date, number of pages, publisher, and location of publishing. The references are arranged in alphabetical order by author or title.

In the introduction the author describes the productivity of educational

20. **Aunela, A.** (1978) Tutkintohallinto tiedekunnassa. Uuden tutkintojärjestelmän aiheuttamia muutoksia yhteiskuntatieteellisessä tiedekunnassa Jyväskylässä. - **Degree administration in a faculty. Report on an experiment carried out in the Faculty of Social Sciences at the University of Jyväskylä.** Bulletin 114. 48 p. ISBN 951-678-084-9

The study describes the experimental degree reform carried out in the Faculty of Social Sciences at the University of Jyväskylä. The approach is that of administration science and consequently the study concentrates on the structure and functioning of degree administration.

The report starts with the aims of the degree reform, its administrative consequences and steering possibilities. The model of degree administration is approached by analysing the structure of degree administration, on the basis of which degree administration is studied from the point of view of different decision-making stages.

19. **Konttinen, E.** (1978) Pitkän koulutuksen saaneiden työttömyydestä 1970-luvulla - kvantitatiivista tarkastelua. - **Academic unemployment in the 1970s - a quantitative study.** Bulletin 107.

56 p. ISBN 951-677-984-0

The aim was to study the development of unemployment in the 1970's among those who have received upper secondary-level education or higher education. The study is a description of quantitative development involving the identification of recent characteristics in the unemployment of the group in question.

The results showed that the unemployment of the labour force sector under study has become fourfold in two years. The unemployment growth rate among those who have received upper secondary-level education exceeds the average growth rate. Unemployment has extented to nearly all of the most important fields of education and also to all levels of higher education. Differences between fields of education are, however, great. Unemployment is most common among those who have only recently completed their studies. Underemployment is also quite common in several fields of education.

18. Sauvala, A.(1978) Thaimaan koulujärjestelmä. - The educational system of Thailand. Bulletin 106. 44 p. ISBN 951-677-963-8

The aim of the report is to describe the educational system of Thailand by means of systems approach. The first chapter concerns itself with the demographic, production-economic and political prerequisites of the educational system of Thailand. The second chapter describes the educational system of the country. The pre-school is for 4-6-year-olds. Primary schools are either of 4 or 7 years' duration. The age of compulsory education is 7-15 years. Both the lower and the upper secondary level take 1-3 years. Higher education courses usually take 4 years. Special education and adult education are suprisingly versatile. The third chapter deals with the starting points of normative planning: Buddhism and democracy. The fourth chapter studies the scarce resources of the educational system, and the fifth chapter focusses on the actual teaching. In the last chapter the educational system of Thailand is evaluated on the basis of subjective experiences gained during a study tour.

17. **Kyöstiö, O. K.** (1977) Viimeaikaista kasvatustutkimustamme: ryhmittelyä ja arviointia. - **Recent educational research in Finland: classification and evaluation.** Bulletin 97. 32 p. ISBN 951-677-891-7

The review focusses on empirical educational research carried out in Finland during 1967-1976. The research has been classified into studies dealing with goals, structures, processes, resources and evaluation of education. The review has been made on the basis of a bibliography compiled by the Institute for Educational Research. It includes a comprehensive list of reference material.

16. **Sysiharju, A.-L.** (1976) Erään ammatillisen täydennyskoulutusprosessin pedagogista analyysia - esimerkkitapauksena korkeakoulujen opettajankoulutusyksiköiden lehtoreiden lakisääteisen jatko-opiskelun toteutus 1974-76. - **Pedagogical analysis of continued professional education - exemplified by the Finnish teacher educators' statutory study leave as realized during its first years 1974-76.** Bulletin 75. 123 p. ISBN 951-677-705-8

The aim of the paper is, partly, to give an organized description of the first implementation (1974-76) of a statutory study leave system for the teacher educators in Finland, and partly to make an attempt at a pedagogical analysis and evaluation of these experiences with the intetion of offering viewpoints not only for further developemnt of this special activity but also for bringing continued professional education of university level into the realm of pedagogic discussion and research.

In addition to the statutory study leave the paper discusses briefly all schooling needs of the whole personnel taking part in the education of teachers. The paper stresses the necessity of hitherto lacking introductory schooling to this task, especially the supervision of teaching practice. The study also contains a review of pedagogical ideas of present interest obtained from other countries for the schooling of teacher educators.

15. **Paukkunen, L & Perkki, L.** (1976) Tutkimus ja seuranta koulutussuunnittelun välineinä. - **Educational research and monitoring as a means of educational planning.** Bulletin 70. 72 p. ISBN 951-677-655-8

The general reform of our educational system has by the middle of the 1970's advanced to a point where the so-called rationalizing phase is now being planned and implemented. In the 1980's we shall have to undertake an extensive reform of the educational contents of all the stages of education. The planning of that reform needs the support of adequate research activities. That is why there is an urgent need for the development and programming of research serving the development of educational planning and education. "The research on research" may have a contribution to give in this developmental work.

14. **Kari,J.** (toim.) Kasvatustieteellisen tutkimuksen suunnittelu. - **Planning Educational Research.** Bulletin 69. 92 p. ISBN 951-677-644-2 *

This publication mainly aims at reviewing the problems that are faced by the students and researchers of behavioral sciences and of educational sciences, in particular, in the beginning of the research process, in the phases that are the most critical and irrevocable in the course of their studies, surveys or researches. This report may be of service in the evaluation of research as well. This study covers those phases of the research process that precede data processing i.e., the selection of research problems, research methodology, research designs, and the problems involved in the construction of measurement instruments. The lectures on methodology given by the writer in the Department of Education, University of Jyväskylä, and in the Institute for Educational Research are the main source of this publication.

13. **Määttä, P.** (1976) Humanistien sijoittumisesta opettaja-ammatin ulkopuolelle. - **Graduates in humanities and their placement in occupations outside the field of teaching.** Bulletin 63. 60 p. ISBN 951-677-600-0

The purpose is to study the placement of graduates in humanities especially in occupations

outside teaching. The report describes the variety of occupations taken up by these graduates, and their placement by industries mainly on the basis data obtained in 1970 population census. The study also focusses on their economic activity and graduation probability, and the homogeneity vs. heterogeneity of the occupational field.

Some conclusions are made as to how education in humanities should be arranged in the new higher education examinations system so that it meets also the requirements of the occupations outside teaching taken up graduates in humanities.

12. **Lahtinen, A.** (1976) Aikakauskirja Kasvatuksen lukijatutkimus. **The Finnish Journal of Education: readership study.** Bulletin 59. 55 p. ISBN 951-677-590-X

The Institute for Educational Research publishes a journal called the Finnish Journal of Education, which is meant for those working in the field of education. The purpose of the user study was to find out how much the Journal is read, what is read in it and to what extent the Journal meets the needs of the various reader groups. A questionnaire was sent at the end of 1973 to 400 readers: researchers, teachers, school administrators and students & other readers. The percentage of returned questionnaires was 66.7. According to readers the Journal was found useful, but it was not read much; 70 per cent do not read it at all systematically. All readers, including researchers, felt that the Journal should have more practical information instead of theoretical information and research reports. Readers hoped also that the Journal should participate more in discussions on present educational problems rather than concentrate largely to the dissemination of scientific information.

11. **Eronen, Y. & Panhelainen, M.** (1975) Korkeakoululaitoksen tutkintohallinnon kehittäminen. - **The development of the administration of the teaching sector in higher education.** Bulletin 51. 46 p. ISBN 951-677-523-3 *

The report contains a study of some central problem areas in the development of the administration of the teaching sector in higher

education as well as some practical proposals for this development. The report is connected with the planning of the reform of higher education examinations which is being carried out at present.

The report analyzes development tasks which will rise from the introduction of a new examinations system and continuous development of examinations. As part of the administration of the teaching sector the report also deals in a general way with the structure of departmental administration in higher education and the main principles in the reorganization of the departments.

10. **Silvennoinen, M. & Saavalainen, M.** (1975) Koulutusohjelma- ja opintojaksosuunnittelun metodinen kehittäminen. Eräät suunnittelun lähtömallit pedagogisen metodin jäsentämiselle ja soveltamiselle. - **Methodical development of the planning of educational programmes and study units in higher education.** Bulletin 38. 107 p. ISBN 951-677-463-6

The report discusses the relationship between the planning of educational programmes and study units in the higher education examinations reform, and puts special emphasis on the role of science as the initial strategy of planning. Vocational considerations and the development of general pedagogy to help the methodology of planning have also been an essential basis.

The planning of teaching strategy which generally refers mainly to the choice of methods and teaching aids in the study unit phase, has deliberately been extented to cover the principles of the aims and contents of educational programmes. The study unit level which has been regarded as the phase of analysis in depth of educational programmes underlines the interrelation of aims and contents, the creation of a didactic-methodical overall framework as well some pedagogic aspects of importance.

9. **Suortti, J.** (1975) Ohjelmoidun opetuksen kehityslinjat ja opetusteknologia. - **On evolutionary trends of programmed learning and educational technology.** Bulletin 35. 185 p. ISBN 951-677-443-1

This report describes the development of programmed learning. It is divided into five main periods presented in chronological order of development. The main aim is to show the defects in didactic concepts taking into account that programmed learning has become synthetized into the concept of educational technology. Educational technology includes programmed learning as part of didactics, and it can be studied both as a teaching method and as a research device. Since programmed learning can be regarded as a research device the use of this device has also been critized in the study, for research on programmed learning has produced very contradictory results. The problem is basicly of science-philosophical nature. Research on educational technology shoud, however, consider the whole society, and possibly be based more on a science-philosophical than on a technocratic basis.

8. **Määttä, P. (1975) Korkeakoulujen oppiainejärjestelmä. - The classification of subjects in institutes of higher education.** Bulletin 33 69 p. ISBN 951-677-429-6 *

The report studies the first principles of the classification of subjects in institutes of higher education, describes the current classification into main fields, and puts forward a proposal for a uniform national classification of subjects. The classification can be utilized in the drawing up of statistics and in the planning of resources, and it may be regarded as a starting point for the final classification.

7. Piippo, T. (1974) Koulutuksen uudistamisen ongelmista ja strategioista. - **On problems and strategies in educational innovations.** Bulletin 30. 35 p. ISBN 951-677-412-1 *

A thorough reform of the whole system of education is being planned and partly already being implemented in Finland. Problems and strategies in the planning and implementation of educational innovations have so far been dealt with very little in Finnish literature. The purpose of this report is to briefly describe some essential problems encountered in educational innovations and to propose some possible solutions.

The survey is based on information and experiences obtained from literature and to some extent also from international and national innovation training. The information, experiences and conclusions may be useful when continuing and developing national innovation training. The survey may also give new impetus for teachers' basic education and especially their in-service training.

6. **Kari, J. (ed.) (1974) Kasvatustieteiden tutkimuslaitoksessa suoritettavien tutkimusten yleinen kulku. - A general model of research process applied at the Institute for Educational Research.** Bulletin 26. 31 p. ISBN 951-677-403-2 *

This guide is planned mainly for the use of researchers and it gives instructions regarding the planning of a study, collection of research material, processing of data, and reporting. Processes connected with the decisionmaking and control of a study are also described. This book of instructions is the result of several years of explication and collaboration of several persons working at the Institute for Educational Research.

5. **Paakkola, E. & Suortti, J. (1974) Opetussuunnitelman filosofiaa. - Curriculum philosophy.** Bulletin 25. 127 p. ISBN 951-677-393-1

Philosophical study and criticism of curricula has been insignificant during the reform of our educational system. In this report an attempt is made to study the background of curriculum research in more detail. The research paradigma is hermeneutic-phenomenological. The aim was to indicate the concern areas in which a philosophical approach in curriculum construction is necessary. Curriculum construction has to be strated with an analysis of the process of understanding of man and the society, which reaches man and future better than empirical methodology. Since a curriculum "builds up" man this build-up has to be based on a wide conception of man presented in the educational plan.

4. **Takala, S. (1974) Piirteitä kansainvälisten kasvatus- ja kulttuurijärjestöjen toiminnasta. - Main activities of international organizations in the fields of education and culture.**

Bulletin 20. 70 p. ISBN 951-677-362-1 *

During its four years of existence the Department of Information and Documentation of the Institute for Educational Research has, in accordance with its statutes, kept international organizations informed of the Finnish educational system, development plans, and educational research. The department has observed that the activities of international organizations is not very well known in our country. This report aims at improving the situation by presenting a survey of the activities of international organizations in the fields of education and culture of which Finland is a member. It is based on the analysis of written documents. It is planned to keep the survey up-to-date by means of periodical reviews.

3. **Malinen, P.** (1974) Opettajankoulutus akateemisten opintojen osana. Analyysi opettajankoulutuksen tieteellisyydestä sekä tähän koulutukseen liittyvän tutkimustoiminnan luonteesta. - **Teacher training as part of academic studies. An analysis about the scientific character of teacher training and the nature of research on teacher education.** Bulletin 19. 43 p. ISBN 951-677-358-3 *

The national Committee for the Teacher Training has during summer 1974 submitted a proposal for the aims for the future teacher training in Finland, and then new programmes for these studies will be prepared in the nearest future. Given this fact, the author has analysed the scientific character and the educational structure of teacher training.

Teachers for elementary grades, secondary grades, special education and guidance can well be educated in universities. The vocational aims and the practical training in teacher education are a necessary part of these programs for academic studies. In this way the interaction between theory and practice will be close and effective. Research work will be an essential part in the reform of teacher education. Research work and the scientific nature must be broadly conceived.

2. **Silvennoinen, M & Peisa, S. & Salmela, R.** (1974) Televisio-opetus korkeakouluopetuksen kehittämisessä. Erittely kokemuksista ja resursseista sekä ehdotukset toimenpiteiksi. - **Television-instruction in the development of higher education. A report on experiences and resources as well as proposals for measures to be taken.** Bulletin 14. 85 p. ISBN 951-677-319-2

The purpose of the study was to produce solution models for decision making related to television-instruction and recommendations for measures for all levels of higher education planning. The data of the report consisted of material collected in 1972 about the extensiveness and application of television-instruction in higher education. The material was complemented by further inquiries made about future plans for television-instruction.

The report consists of an introduction, which analyzes and groups the information and experiences, as well as a section of recommendations, which includes proposals for measures to be taken for the development of television instruction as part of other instructional development work. The proposals for measures also try to present some problem areas which have to be studied urgently, the main development lines of which have to be decided before making detailed decisions regarding teaching aids etc.

1. Karvonen, J. (1974) Miten kirjoitan tutkimusraportin. - **How to write a research report?** Bulletin 12. 50 p. ISBN 951-677-298-6 *

The purpose of the guide book is to give advice in the reporting of research results in educational science and also in other behavioral sciences. Written communication of research knowledge should be as distinct and logical as possible. This aim might be reached by the standardization of writing practice.

KASVATUSTIETEIDEN TUTKIMUSLAITOS. JYVÄSKYLÄN YLIOPISTO.
Pedagogiska forskningsinstitutet. Jyväskylä universitet.
Institute for Educational Research. University of Jyväskylä.

Seminaarinkatu 15, SF-40100 Jyväskylä, Finland. Puh.vaihde (tel.vx.)
941-291 211 (tai suoraan 941-292 378)

Julkaisujen myyntiä hoitava Asiakaspalvelu, Yliopistonkatu 9, on avoinna 9-11 ja 13-15. Puhelimitse tai kirjeitse tilattaessa julkaisut toimitetaan yksityishenkilöille postiennakolla. Laitoksille lähetämme laskun.

KASVATUSTIETEIDEN TUTKIMUSLAITOKSEN JULKAISUSARJA A. TUTKIMUKSIA
ISSN 0782-9809
Institute for Educational Research. Publication series A. Research reports
Pedagogiska forskningsinstitutet. Publikationsserie A. Forskning

Hinta/
price
pris

001/1986 Sirkka Hirsjärvi - Pirkko Remes: Voidaanko tulevaisuuteen vaikuttaa? Koulutus ja tietoyhteiskunta - tutkimuksen osaraportti. - Can the future be influenced? A subreport of the project on education and the information society. Asiasanat/Descriptors: tulevaisuuden ennakointi/forecasting, futurologia/futurology, koulutus/education. (+) (148 s.)
ISBN 951-679-613-3 39,-

KASVATUSTIETEIDEN TUTKIMUSLAITOS. JYVÄSKYLÄN YLIOPISTO.
Pedagogiska forskningsinstitutet. Jyväskylä universitet.
Institute for Educational Research. University of Jyväskylä.

Seminaarinkatu 15, SF-40100 Jyväskylä, Finland. Puh. vaihde (tel.vx.)
941-291 211 (tai suoraan 941-292 378)

Julkaisujen myyntiä hoitava Asiakaspalvelu, Yliopistonkatu 9, on avoinna
9-11 ja 13-15. Puhelimitse tai kirjeitse tilattaessa julkaisut toimitetaan
yksityishenkilöille postiennakolla. Laitoksille lähetämme laskun.

KASVATUSTIETEIDEN TUTKIMUSLAITOKSEN JULKAISUSARJA B. TEORIAA JA KÄYTÄNTÖÄ
ISSN 0782-9817
Institute for Educational Research. Publication series B. Theory into practice
Pedagogiska forskningsinstitutet. Publikationsserie B. Teori och praxis

		Hinta/ price/ pris
001/1986	Seppo Hämäläinen (toim.): Kehittyykö koulu? Tutkijoiden arviointeja peruskoulun ja lukion nykytilasta. - Is the school developing? Researchers' opinions about the present state of the comprehensive school and the upper secondary school. Asiasanat/Descriptors: peruskoulu/comprehensive school, lukio/upper secondary, seurantatutkimus/follow-up study, oppimisprosessi/learning process, koulusaavutukset/ achievement, oppilasarvostelu/grading, koulutusasteiden niveltäminen/liaison between levels of education. (77 s.) ISBN 951-679-562-5	67,-
002/1986	Irma Hirsjärvi - Sirkka Hirsjärvi: Kasvatuksen tulevaisuudenkuvat tieteiskirjallisuudessa. - Visions of education in science fiction. Asiasanat/Descriptors: tulevaisuuden ennakointi/forecasting, futurologia/futurology, koulutus/education, tieteiskirjallisuus/science fiction. (+) (133 s.) ISBN 951-679-563-3	37,-

KASVATUSTIETEIDEN TUTKIMUSLAITOS. JYVÄSKYLÄN YLIOPISTO.
Pedagogiska forskningsinstitutet. Jyväskylä universitet.
Institute for Educational Research. University of Jyväskylä.

Seminaarinkatu 15, SF-40100 Jyväskylä, Finland. Puh.vaihde (tel.vx.)
941-291 211 (tai suoraan 941-292 378)

Julkaisujen myyntiä hoitava Asiakaspalvelu, Yliopistonkatu 9, on avoinna 9-11 ja 13-15. Puhelimitse tai kirjeitse tilattaessa julkaisut toimitetaan yksityishenkilöille postiennakolla. Laitoksille lähetämme laskun.

KASVATUSTIETEIDEN TUTKIMUSLAITOKSEN JULKAISUSARJA C. TIEDOTTEITA
ISSN 0782-9825
Institute for Educational Research. Publication series C. Bulletin
Pedagogiska forskningsinstitutet. Publikationsserie C. Meddelande

		Hinta/ price/ pris
001/1986	Kasvatustieteiden tutkimuslaitoksen toimintakertomus vuodelta 1985. - Institute for Educational Research. Annual report 1985. Asiasanat/Descriptors: kasvatustieteellinen tutkimus/koulutustutkimus/educational research, vuosikertomus/annual report, tutkimuskeskus/research centre. (57 s.) ISBN 951-679-564-1	15,-
002/1986	Kaisu Ollila: Suomalaisen kasvatusalan kirjallisuuden luettelo vuodelta 1981. Aikakauslehtiartikkelit. - Bibliography of Finnish educational literature 1981. Periodical articles. Asiasanat/Descriptors: bibliografia/bibliography, aikakauslehti/periodical, kasvatustieteellinen tutkimus/ educational research, tiede/science, tiedottaminen/information dissemination, informaatio/information. (58 s.) ISBN 951-679-584-6	15,-
003/1986	Leena Lestinen (toim.): Tutkittua korkeakoulutuksesta. Kasvatustieteiden tutkimuslaitoksen raporttien tiivistelmät 1966-1985. - Higher Education Research at the Institute for Educational Research. Abstract Catalogue 1966-1985. Asiasanat/Descriptors: korkeakoulutus/higher education, tutkimus/ research, bibliografia/bibliography, tiedonvälitys/dissemination of information. (62 s.) ISBN 951-679-649-4	18,-
004/1986	Leena Lestinen: (ed.) Higher Education Research at the Institute for Educational Research. Abstract Catalogue 1966-1985. - Tutkittua korkeakoulutuksesta. Kasvatustieteiden tutkimuslaitoksen raporttien tiivistelmiä 1966-1985. Asiasanat/ Descriptors: higher education/korkeakoulutus, research/tutkimus, bibliography/bibliografia, dissemination of information/ tiedonvälitys. (68 s.) ISBN 951-679-650-8	18,-
005/1986	Anja Agander (toim.): Kasvatuksen ja koulutuksen tutkimusrekisteri 1983-84: varhaiskasvatus, perusasteen koulutus, keskiasteen koulutus ja yleistutkimukset. - Educational research in Finland in 1983-84: early childhood education, primary education, secondary education and general research studies.	

Asiasanat/Descriptors: kasvatustiede/educational science, kasvatustieteellinen tutkimus/educational research, varhaiskasvatus/early childhood education, perusasteen koulutus/primary education, keskiasteen koulutus/secondary education, tutkimus- ja kehittämistyö/R & D. (242 s.) ISBN 951-679-652-4 59,-

006/1986 Leena Lestinen: Kasvatuksen ja koulutuksen tutkimusrekisteri 1983-84. Korkeakoulutus. (153 s.) ISBN 951-679-652-4 41,-

(+) merkityistä julkaisuista on ko. kielinen pitempi tiivistelmä.

Rapporterna märkta med (+) är försedda med längre svenskspråkig sammanfattning.

Reports marked with (+) have a longer English summary.

University of Jyväskylä
Finland

N E W PUBLICATIONS FROM

THE UNSTITUTE FOR EDUCATIONAL RESEARCH

* HIGHER EDUCATION

Published in 1986:

INSTITUTE FOR EDUCATIONAL RESEARCH. REPORTS.
ISSN 0448-0953

Panhelainen, M. (1985) Humanistisen ja luonnontieteellisen alan opiskelijoiden opinto- ja ammattiorientaation kehitys. - **The development of study and professional orientation of students in the humanities and natural sciences.** Reports 368. 295 p. ISBN 951-679-506-4 (69 FM) English summary

The report is concerned with the orientational development of students in the humanities and natural sciences from application to the fourth year of studies. The material was collected at three different points in time. The frame of references emphasizes interaction between an individual and the environment, particularly the impact of institutional frame factors on studies. The findings show the centricity of subject teacher's profession and the significance of motivational study background in changes taking place in orientation during the cource of studies. Conceptions of teacher's work developed in a pupil-centred direction; among teacher trainees the changes were mostly in the area of methods and didactics rather than in general educational attitudes.

Descriptors: higher education, university studies, subject teacher, teacher education, socialization, orientation, longitudinal study

---

INSTITUTE FOR EDUCATIONAL RESEARCH. PUBLICATION SERIES B. THEORY INTO PRACTICE.
ISSN 0782-9817

Hirsjärvi, I. & Hirsjärvi, S. (1986) Kasvatuksen tulevaisuudenkuvat tieteiskirjallisuudessa. - **Visions of education in science fiction.** Theory into practice 2. 133 p. ISBN 951-679-563-3 (37 FM) English summary

The project has looked for descriptions of education and schooling in science fiction. The material used represents science fiction since 1950, either written or translated into Fin-

nish. The final analysis comprised 14 books containing different forecasts of education and schooling. The project explored also the general cultural background, the status of the family and the role of work, education and free-time in the life circle of future man.

Descriptors: forecasting, futurology, education, science fiction

---

INSTITUTE FOR EDUCATIONAL RESEACH. PUBLICATION SERIES C. BULLETIN.
ISSN 0782-9825

Lestinen, L. (ed.)(1986) Higher Education Research at the Institute for Educational Research. Abstract Catalogue 1966-1985. Bulletin 4. 68 p. ISBN 951-679-650-8 (18 FM) In English

The catalogue includes 112 abstracts of research reports and bibliographies published by the Institute for Educational Research in 1966-1985. 64 of these reports have come out in the series of Publications and 48 in the series of Bulletin. The abstracts constitute a review of higher education research at the institute during the past two decades. A major part of this work has been closely linked with the reform of the higher education institution in Finland in the 70s. The aim of the English version of the catalogue is to promote dissemination of research information outside Finland.

Descriptors: higher education, research, bibliography, dissemination of information

Lestinen, L. (toim.)(1986) Kasvatuksen ja koulutuksen tutkimusrekisteri 1983-1984: korkeakoulutus. - Educational Research in Finland 1983-1984: Higher Education. Bulletin 6. 185 p. ISBN 951-679-652-4 (47 FM)

The bulletin contains descriptions and contact informations of 80 research projects and 27 R&D projects in the field of higher education which were in progress or completed in 1983-1984. The catalogue contains a foreword, an abstract and the Tables in English. Of the research descriptions the titles, the keywords and names of the research institutes have been translated into English.

Descriptors: higher education, research, R&D, bibliography, dissemination of information

Publication series **REPORTS** ends with number 371/1986 and **BULLETIN** with number 279/1986.

Our new publication series are:

Institute for Educational Research:
Publication series A. Research reports
Publication series B. Theory into practice
Publication series C. Bulletin

All publications include an English abstract and often also an English summary.

The publications can be obtained from

Institute for Educational Research
University of Jyväskylä
Seminaarinkatu 15
SF-40100 Jyväskylä FINLAND
Tel. +358 41 292 378/ +358 41 291 211

The catalogue includes over 100 abstracts of higher education research reports from Institute for Educational Research in 1966—1985. The abstracts can partly be seen as a review of higher education research at the national institute during a time of great reforms in the Finnish higher education institution. The English version of the catalogue is an attempt to break down "language barriers" in the dissemination of research information outside Finland.

This publication can be obtained from

Institute for Educational Research
University of Jyväskylä
Seminaarinkatu 15
SF-40100 Jyväskylä
Phone (941) 292378
ISBN 951-679-650-8
ISSN 0782-9825